TECHNICAL SUPPORT MANUAL
Duct Free Split Systems
DFF2A/H and DFC2A/H

Safety Labeling and Signal Words

DANGER, WARNING, CAUTION, and NOTE

The signal words **DANGER, WARNING, CAUTION,** and **NOTE** are used to identify levels of hazard seriousness. The signal word **DANGER** is only used on product labels to signify an immediate hazard. The signal words **WARNING, CAUTION,** and **NOTE** will be used on product labels and throughout this manual and other manuals that may apply to the product.

DANGER – Immediate hazards which **will** result in severe personal injury or death.

WARNING – Hazards or unsafe practices which **could** result in severe personal injury or death.

CAUTION – Hazards or unsafe practices which **may** result in minor personal injury or product or property damage.

NOTE – Used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.

Signal Words in Manuals

The signal word **WARNING** is used throughout this manual in the following manner:

⚠ WARNING

The signal word **CAUTION** is used throughout this manual in the following manner:

⚠ CAUTION

Signal Words on Product Labeling

Signal words are used in combination with colors and/or pictures on product labels.

TABLE OF CONTENTS

⚠ WARNING

PERSONAL INJURY, AND/OR PROPERTY DAMAGE HAZARD

Failure to carefully read and follow this warning could result in equipment malfunction, property damage, personal injury and/or death.

Installation or repairs made by unqualified persons could result in equipment malfunction, property damage, personal injury and/or death.

The information contained in this manual is intended for use by a qualified service technician familiar with safety procedures and equipped with the proper tools and test instruments.

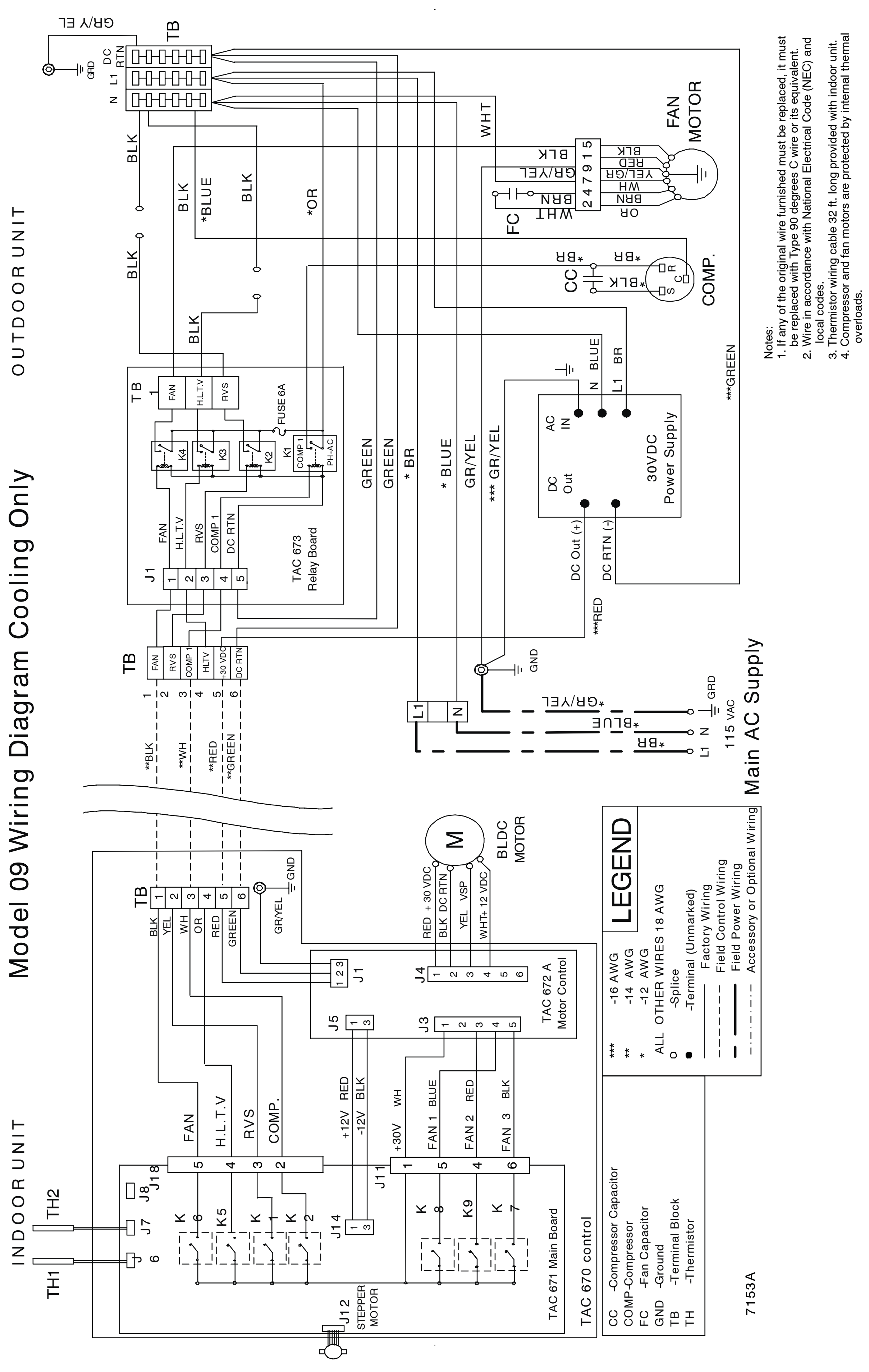
Installation must conform with local building codes and with the National Electrical Code NFPA70 current edition or Canadian Electrical Code Part 1 CSA C.22.1.

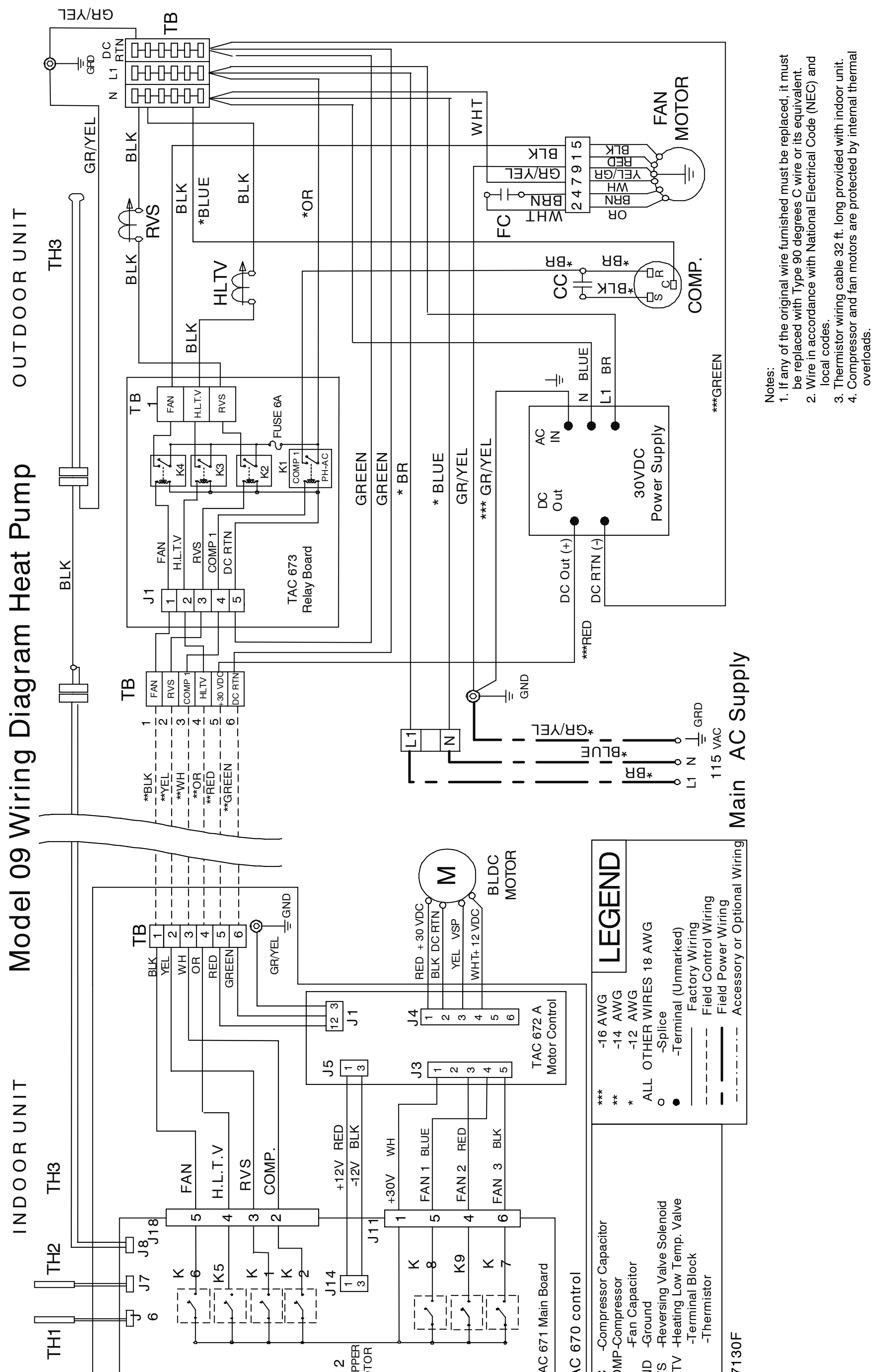
Outdoor Model Size	**09J1A**	**12J1A**	**18K1A**	**24K1A**	**30K1A**	**36K1A**	**18J2A**	**24J2A**
Indoor Model Size	**09J1A**	**12J1A**	**18J1A**	**24K1A**	**30K1A**	**36K1A**	**2 x 09J1A**	**2 x 12J1A**
PHYSICAL DATA - Air Conditioner								
Cooling Capacity (BTU/hr)	9,000	11,600	19,000	22,800	29,000	33,000	2 x 9,000	2 x 11,600
SEER	13.0	13.0	13.0	13.0	14.0	13.0	13.0	13.0
Moisture Removal (pints/hr)	2.6	4.5	5.3	5.0	7.0	8.0	2 x 2.6	2 x 4.5
Indoor Fan CFM (High speed)	350	400	670	726	860	860	2 x 350	2 x 400
Indoor Sound Rating (dBA High - dBA Low)	55 - 45	60 - 48	62 - 50	64 - 50	65 - 53	65 - 53	2 x 55-45	2 x 60-48
Outoor Sound Rating (dBA)	68	72	74	76	76	76	74	76
Liquid Line Connection Size (in.)	1/4	1/4	3/8	3/8	3/8	3/8	2 x 1/4	2 x 1/4
Vapor Line Connection Size (in.)	1/2	1/2	5/8	5/8	3/4	3/4	2 x 1/2	2 x 1/2
Maximum Vertical Separation (ft.) **Indoor Higher** than Outdoor	30	30	30	65	65	65	30	30
Maximum Vertical Separation (ft.) **Indoor Lower** than Outdoor	30	30	30	75	75	75	30	30
Maximum Line-set Length (ft.)	50	50	50	130	130	130	50	50
Factory Charge R-22 (lbs.) *	2.7	3.1	4.1	4.2	6.06	5.9	2 x 2.7	2 x 3.1
* Units are factory charged for 25' of line set. Add or remove .3oz. of charge per foot if line set length is different.								
Net Weight, Outdoor (lbs.)	73	114	136	187	198	198	136	228
Net Weight, Indoor (lbs.)	19	19	27.5	27.5	51	51	2 x 19	2 x 19
OUTDOOR ELECTRICAL DATA - Air Conditioner								
Required Supply Voltage	115-1-60 AC		208/230-1-60 AC				115-1-60 AC	
Control Voltage	30 VDC			24 VAC				
Minimum Circuit Ampacity - **MCA** (amps)	9	11.6	10.7	11	13	15.6	19.8	24.6
Maximum OverCurrent Protective device - **MOCP** (amps)	15	20	20	20	25	30	25	30
Compressor **RLA** (Run Load Amps) **LRA** (Locked Rotor Amps)	6.1 42	7.6 58	6.5 42	8.6 60	10.0 76	12.9 73	7.2 42	9.3 58
Fan Motor Amps	0.9	1	0.88	0.87	0.94	0.94	1	1
INDOOR ELECTRICAL DATA - Air Conditioner								
Required Supply Voltage	30 DC [1]			208/230-1-60 AC			30 DC [1]	
Control Voltage	30 VDC			24 VAC				
FLA (Full Load Amps)	1.8	1.8	2.4	0.6	0.6	0.6	2 x 1.8	2 x 1.8
Minimum Circuit Ampacity - **MCA** (amps)	N/A [1]	N/A [1]	N/A [1]	0.46	0.55	0.55	N/A [1]	N/A [1]
Maximum OverCurrent Protective device - **MOCP** (amps)	N/A [1]	N/A [1]	N/A [1]	15 [2]	15 [2]	15 [2]	N/A [1]	N/A [1]

1. 30VDC is generated by the outdoor unit and delivered through low voltage wiring to power the indoor unit. Separate disconnect or over-current protection device not required at indoor unit.
2. If indoor unit is powered from outdoor terminal block, the MOCP for the outdoor unit covers both units.

Outdoor Model Size	09J1A	12J1A	18K1A	24K1A	30K1A	36K1A	18J2A	24J2A
Indoor Model Size	**09J1A**	**12J1A**	**18J1A**	**24K1A**	**30K1A**	**36K1A**	**2 x 09J1A**	**2 x 12J1A**
PHYSICAL DATA - Heat Pump								
Cooling Capacity (BTU/hr)	9,000	11,600	19,000	22,800	29,000	33,000	2 x 9,000	2 x 11,600
SEER	13.0	13.0	13.0	13.0	14.0	13.0	13.0	13.0
Heating Capacity (BTU/hr)	8,600	11,800	18,300	22,600	28,000	32,000	2 x 8,600	2 x 11,800
HSPF	7.7	7.7	7.7	7.7	8.4	8.4	7.7	7.7
Moisture Removal (pints/hr)	2.6	4.5	5.3	5.0	7.0	8.0	2 x 2.6	2 x 4.5
Indoor Fan CFM (High speed)	350	400	670	726	860	860	2 x 350	2 x 400
Indoor Sound Rating (dBA High - dBA Low)	55 - 45	60 - 48	62 - 50	64 - 50	65 - 53	65 - 53	2 x 55-45	2 x 60-48
Outoor Sound Rating (dBA)	68	72	74	76	76	76	74	76
Liquid Line Connection Size (in.)	1/4	1/4	3/8	3/8	3/8	3/8	2 x 1/4	2 x 1/4
Vapor Line Connection Size (in.)	1/2	1/2	5/8	5/8	3/4	3/4	2 x 1/2	2 x 1/2
Maximum Vertical Separation (ft.) **Indoor Higher** than Outdoor	30	30	30	65	65	65	30	30
Maximum Vertical Separation (ft.) **Indoor Lower** than Outdoor	30	30	30	75	75	75	30	30
Maximum Line-set Length (ft.)	50	50	50	130	130	130	50	50
Factory Charge R-22 (lbs.) *	2.7	3.1	4.1	4.2	6.06	5.9	2 x 2.7	2 x 3.1
* Units are factory charged for 25' of line set. Add or remove .3oz. of charge per foot if line set length is different.								
Net Weight, Outdoor (lbs.)	73	114	136	187	198	198	136	228
Net Weight, Indoor (lbs.)	19	19	27.5	27.5	51	51	2 x 19	2 x 19
OUTDOOR ELECTRICAL DATA - Heat Pump								
Required Supply Voltage	115-1-60 AC		208/230-1-60 AC				115-1-60 AC	
Control Voltage	30 VDC			24 VAC				
Minimum Circuit Ampacity - **MCA** (amps)	9	11.6	10.7	11	13	15.6	19.8	24.6
Maximum OverCurrent Protective device - **MOCP** (amps)	20	20	20	20	25	30	25	30
Compressor **RLA** (Run Load Amps) **LRA** (Locked Rotor Amps)	6.1 42	7.6 58	6.5 42	8.6 60	10.0 76	12.9 73	7.2 42	9.3 58
Fan Motor Amps	0.9	1	0.88	0.87	0.94	0.94	1	1
INDOOR ELECTRICAL DATA - Heat Pump								
Required Supply Voltage	30 DC [1]			208/230-1-60 AC			30 DC [1]	
Control Voltage	30 VDC			24 VAC				
FLA (Full Load Amps)	1.8	1.8	2.4	0.6	0.6	0.6	2 x 1.8	2 x 1.8
Minimum Circuit Ampacity - **MCA** (amps)	N/A [1]	N/A [1]	N/A [1]	0.46	0.55	0.55	N/A [1]	N/A [1]
Maximum OverCurrent Protective device - **MOCP** (amps)	N/A [1]	N/A [1]	N/A [1]	15 [2]	15 [2]	15 [2]	N/A [1]	N/A [1]

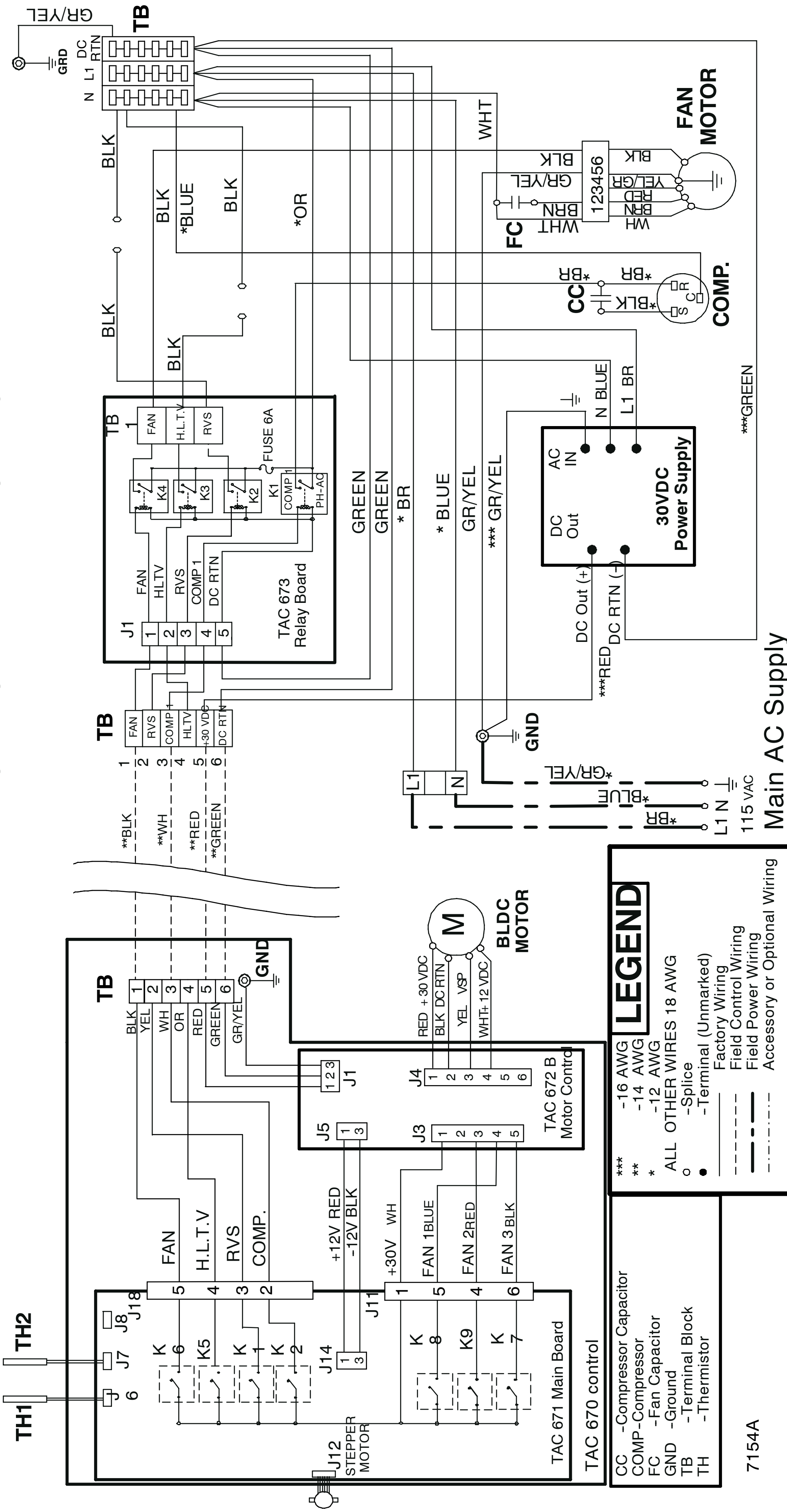
1. 30VDC is generated by the outdoor unit and delivered through low voltage wiring to power the indoor unit. Separate disconnect or over-current protection device not required at indoor unit.
2. If indoor unit is powered from outdoor terminal block, the MOCP for the outdoor unit covers both units.


Model 09 Wiring Diagram Cooling Only
INDOOR UNIT
OUTDOOR UNIT
TAC 671 Main Board
TAC 670 control
TAC 672 A Motor Control
TAC 673 Relay Board
30VDC Power Supply
Main AC Supply
115 VAC
BLDC MOTOR
FAN MOTOR
COMP.
STEPPER MOTOR
LEGEND
*** -16 AWG
** -14 AWG
* -12 AWG
ALL OTHER WIRES 18 AWG
-Splice
-Terminal (Unmarked)
Factory Wiring
Field Control Wiring
Field Power Wiring
Accessory or Optional Wiring
CC -Compressor Capacitor
COMP -Compressor
FC -Fan Capacitor
GND -Ground
TB -Terminal Block
TH -Thermistor
7153A
Notes:
1. If any of the original wire furnished must be replaced, it must be replaced with Type 90 degrees C wire or its equivalent.
2. Wire in accordance with National Electrical Code (NEC) and local codes.
3. Thermistor wiring cable 32 ft. long provided with indoor unit.
4. Compressor and fan motors are protected by internal thermal overloads.
DFF2AH09 Fan Coil with DFC2A309 Condensing Unit



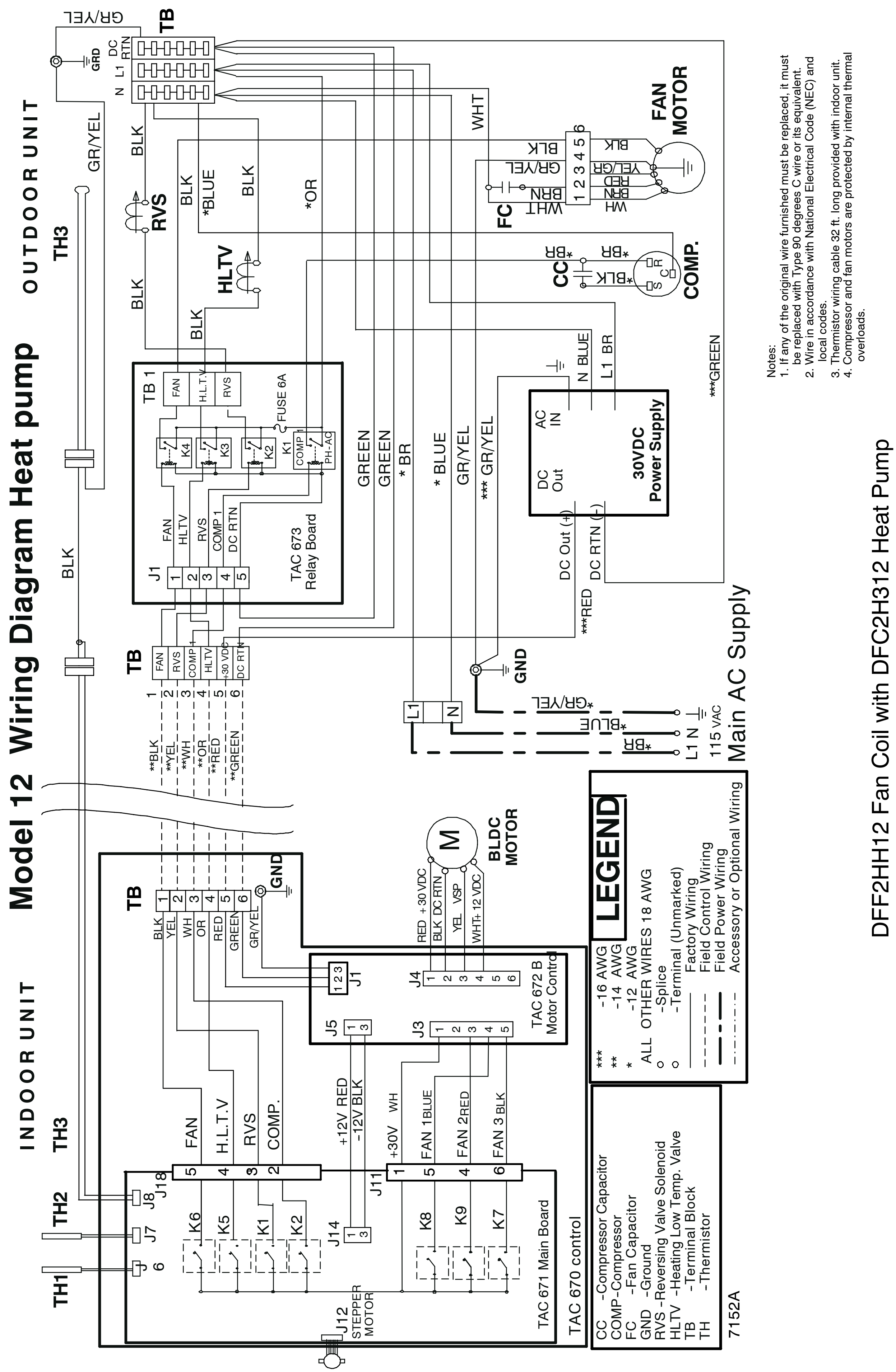
DFF2HH09 Fan Coil with DFC2H309 Condensing Unit

Model 12 Wiring Diagram Cooling Only

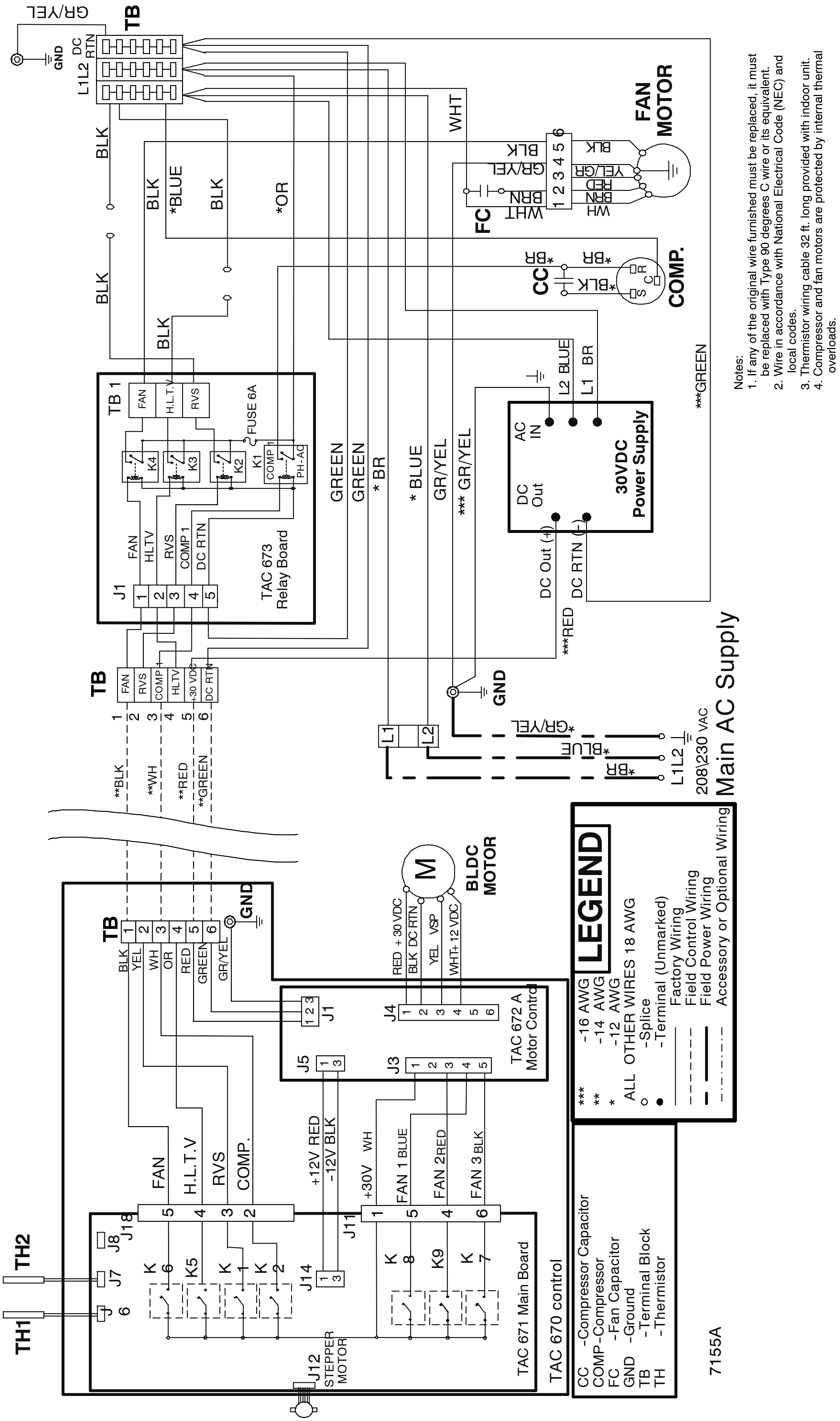


Notes:
1. If any of the original wire furnished must be replaced, it must be replaced with Type 90 degrees C wire or its equivalent.
2. Wire in accordance with National Electrical Code (NEC) and local codes.
3. Thermistor wiring cable 32 ft. long provided with indoor unit.
4. Compressor and fan motors are protected by internal thermal overloads.

DFF2AH12 Fan Coil with DFC2A312Condensing Unit

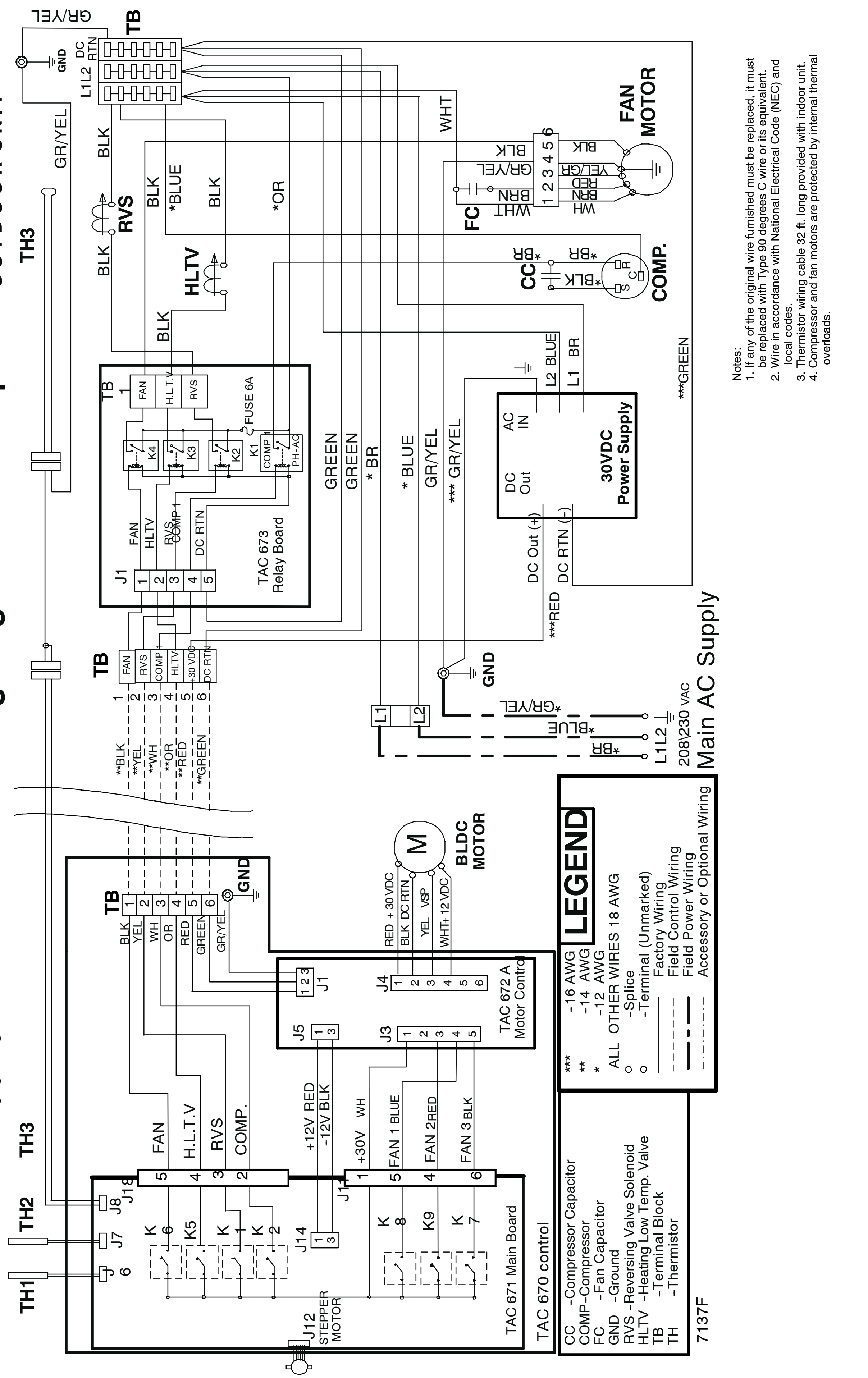

Model 12 Wiring Diagram Heat pump
INDOOR UNIT
OUTDOOR UNIT
TAC 671 Main Board
TAC 670 control
TAC 672 B Motor Control
TAC 673 Relay Board
30VDC Power Supply
BLDC MOTOR
FAN MOTOR
COMP.
Main AC Supply
115 VAC
LEGEND
*** -16 AWG
** -14 AWG
* -12 AWG
ALL OTHER WIRES 18 AWG
o -Splice
o -Terminal (Unmarked)
Factory Wiring
Field Control Wiring
Field Power Wiring
Accessory or Optional Wiring
CC -Compressor Capacitor
COMP-Compressor
FC -Fan Capacitor
GND -Ground
RVS -Reversing Valve Solenoid
HLTV -Heating Low Temp. Valve
TB -Terminal Block
TH -Thermistor
7152A
Notes:
1. If any of the original wire furnished must be replaced, it must be replaced with Type 90 degrees C wire or its equivalent.
2. Wire in accordance with National Electrical Code (NEC) and local codes.
3. Thermistor wiring cable 32 ft. long provided with indoor unit.
4. Compressor and fan motors are protected by internal thermal overloads.
DFF2HH12 Fan Coil with DFC2H312 Heat Pump

Model 18 Wiring Diagram Cooling Only

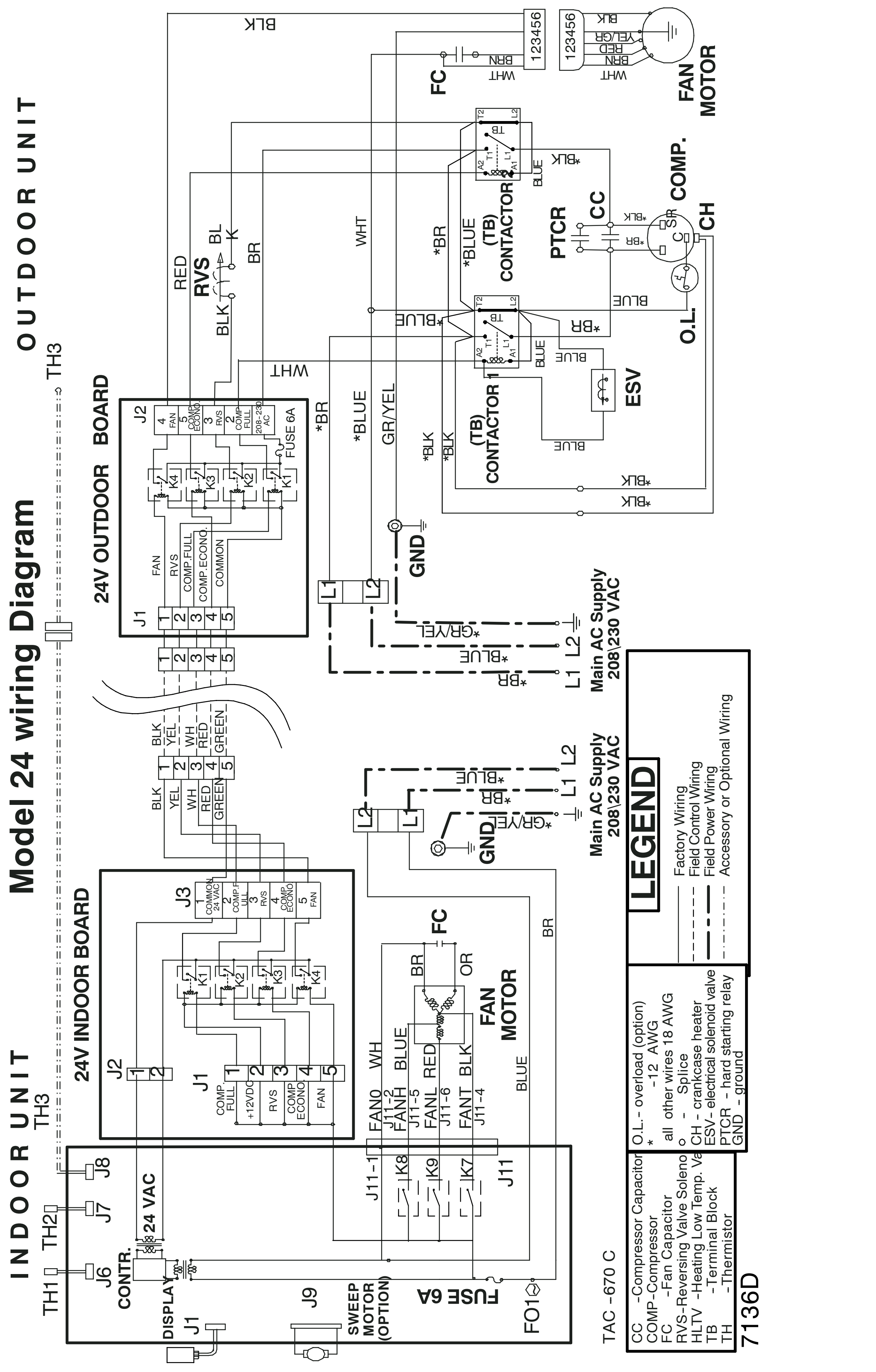


DFF2AH18 Fan Coil with DFC2A318 Condensing Unit

Model 18 Wiring Diagram Heat Pump

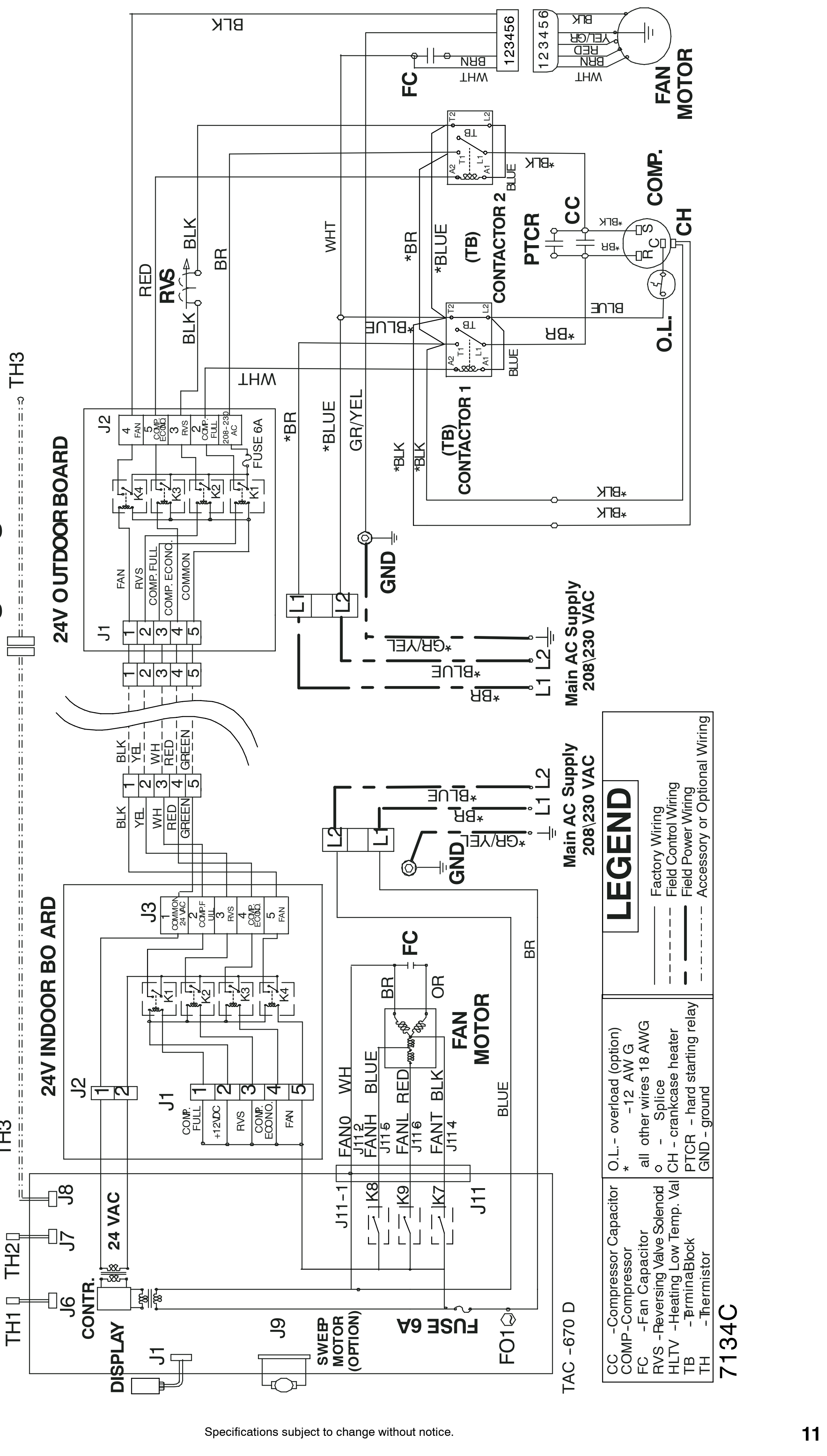


DFF2HH18 Fan Coil with DFC2H318 Heat Pump



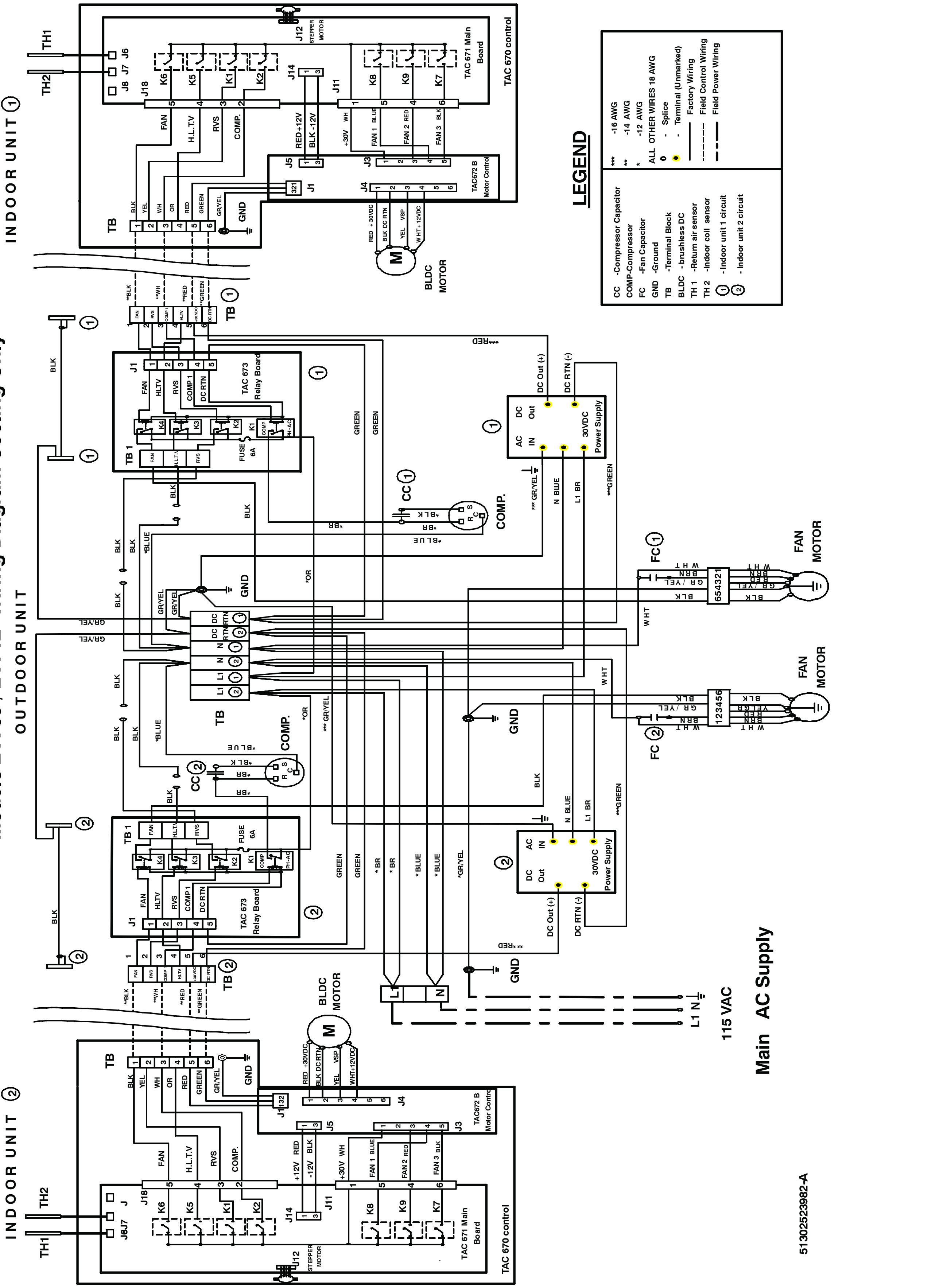
DFF2AH/HH 24 Fan Coil with DFC2A/H3 24 Condensing Unit/Heat Pump

Models 30/36 wiring Diagram

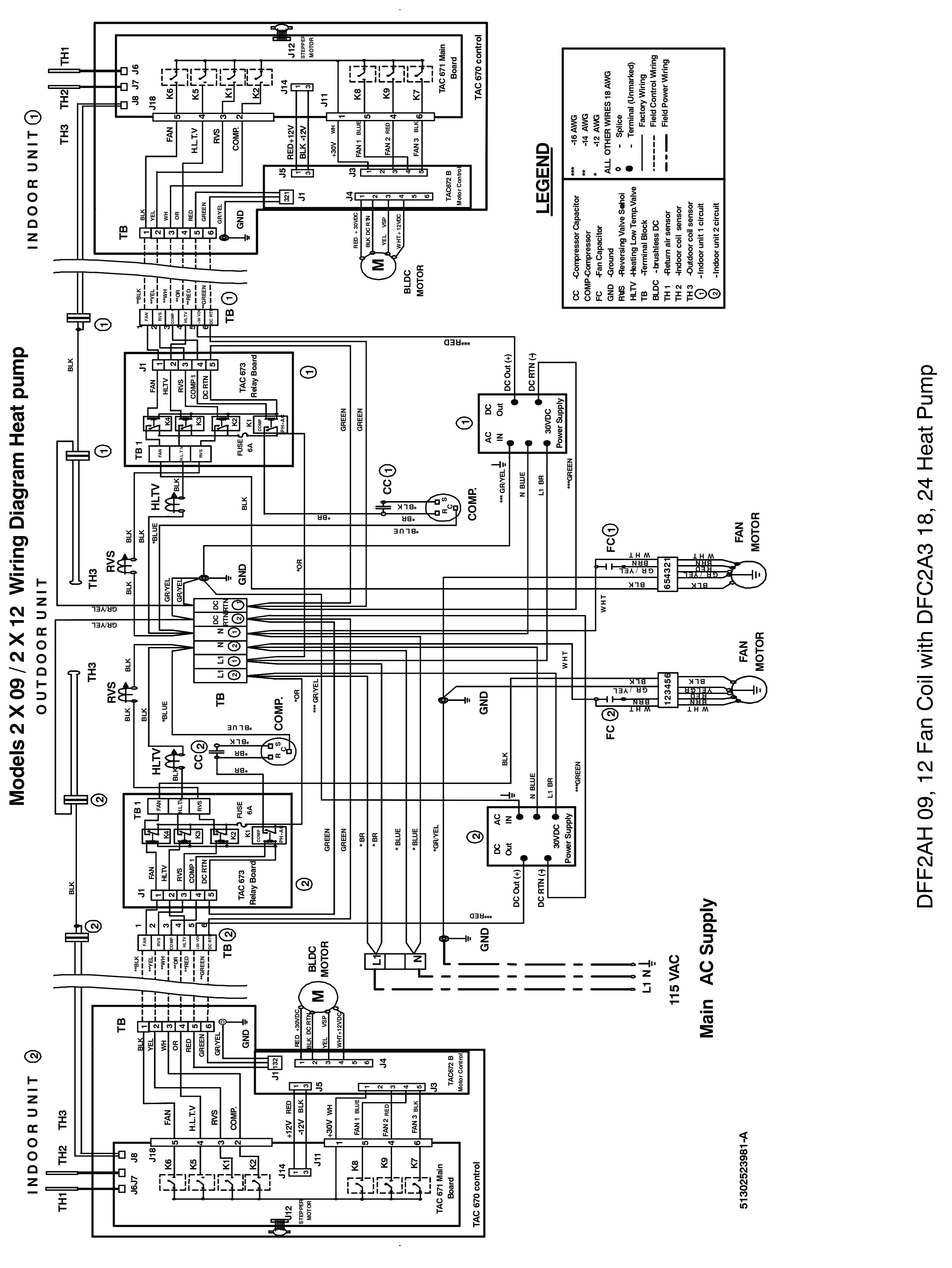


DFF2AH/DFF2HH 30, 36 Fan Coil with DFC2AH/DFC2H3 30, 36 Condensing Unit/Heat Pump

Models 2 X 09 / 2 X 12 Wiring Diagram Cooling Only

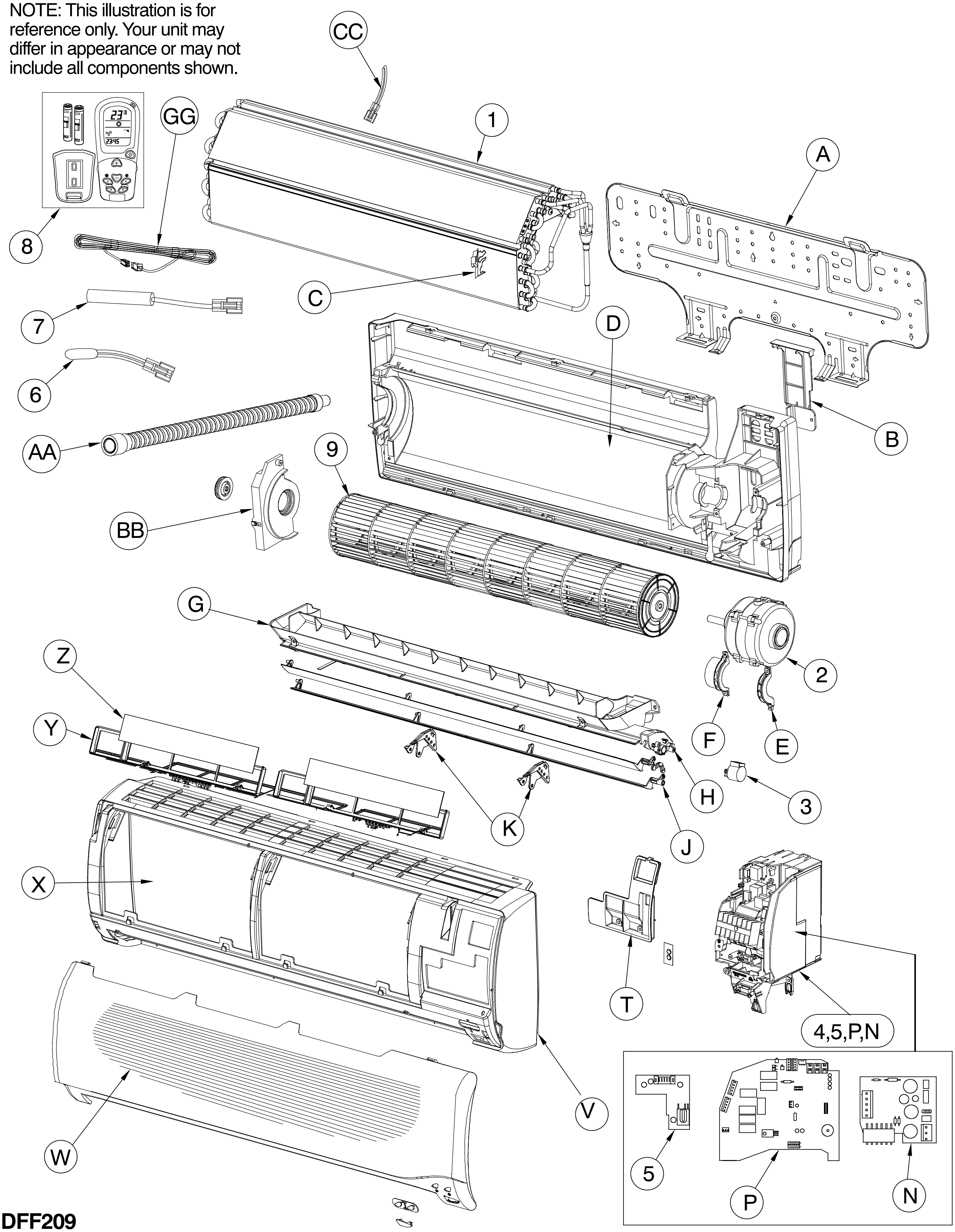


DFF2AH 09, 12 Fan Coil with DFC2A3 18, 24 Condensing Unit


Models 2 X 09 / 2 X 12 Wiring Diagram Heat pump
OUTDOOR UNIT
INDOOR UNIT 1
INDOOR UNIT 2
TAC 671 Main Board
TAC 670 control
TAC672 B Motor Control
TAC 673 Relay Board
BLDC MOTOR
FAN MOTOR
COMP.
30VDC Power Supply
Main AC Supply
115 VAC
LEGEND
CC -Compressor Capacitor
COMP-Compressor
FC -Fan Capacitor
GND -Ground
HLTV -Heating Low Temp.Valve
TB -Terminal Block
BLDC - brushless DC
TH 1 -Return air sensor
TH 2 -Indoor coil sensor
TH 3 -Outdoor coil sensor
1 -Indoor unit 1 circuit
2 -Indoor unit 2 circuit
*** -16 AWG
** -14 AWG
* -12 AWG
ALL OTHER WIRES 18 AWG
Splice
Terminal (Unmarked)
Factory Wiring
Field Control Wiring
Field Power Wiring
5130252981-A
DFF2AH 09, 12 Fan Coil with DFC2A3 18, 24 Heat Pump

DFF2AH09J1A, DFF2AH12J1A, DFF2HH09J1A, DFF2HH12J1A

NOTE: This illustration is for reference only. Your unit may differ in appearance or may not include all components shown.

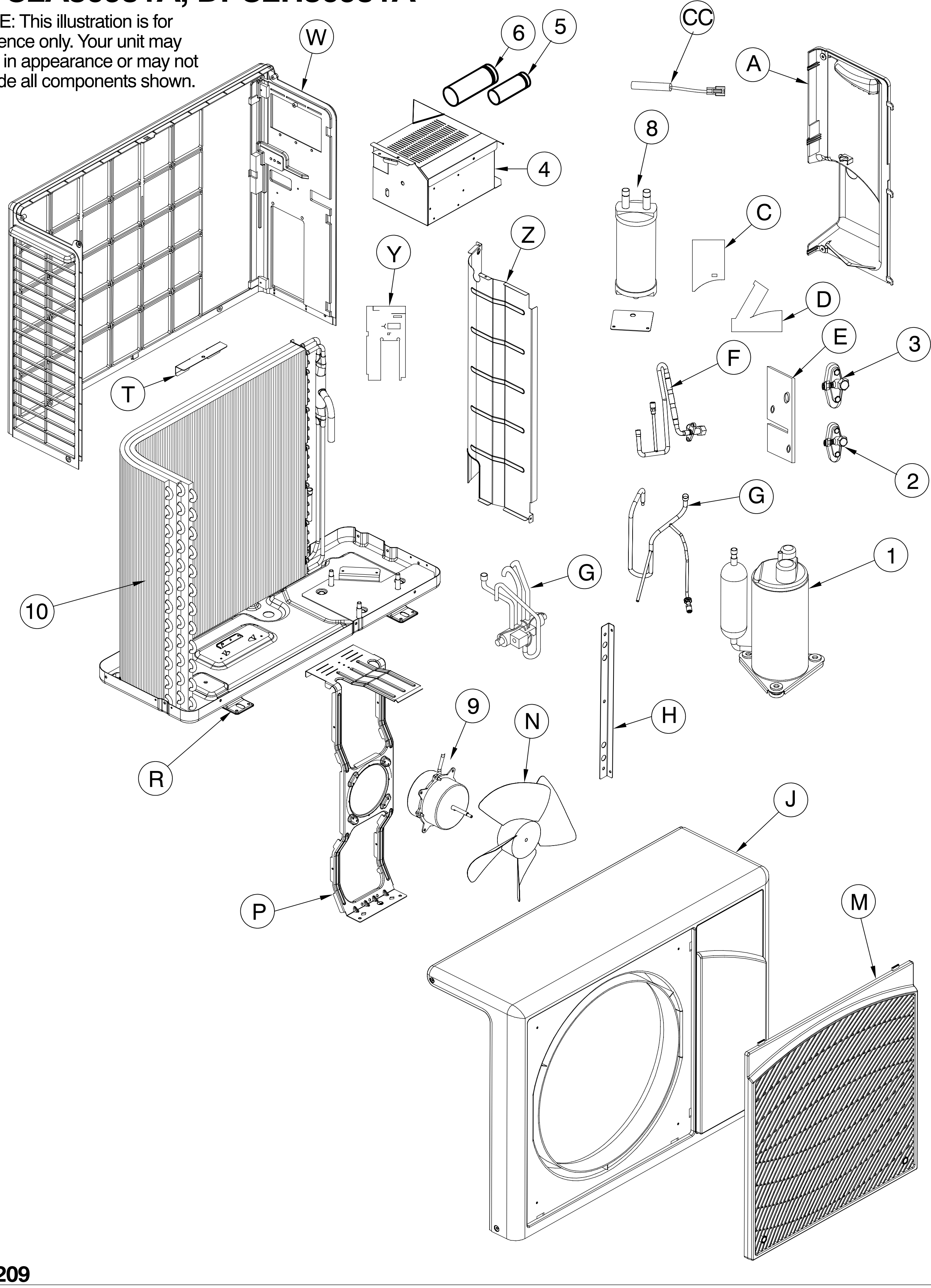


DFF209

DFF2A/H 09 & 12 PARTS LIST INDOOR						
KEY NO.	DESCRIPTION	PART NO.	DFF2AH09J1A	DFF2AH12J1A	DFF2HH09J1A	DFF2HH12J1A
01	EVAPORATOR COIL ASSEMBLY	51308470400	1	1	1	1
02	FAN MOTOR EVAPORATOR BLDC	51301323600	1	1	1	1
03	STEPPING MOTOR	51301300400	1	1	1	1
04	ELECTRONIC CONTROL BOX ASSEMBLY TAC-670A	51603540400	1	1	1	1
05	DISPLAY CARD TAC-60XTG	51603516600	1	1	1	1
06	SENSOR TH-1 0.35 m TAC-600	51303502790	1	1	1	1
07	SENSOR TH-2 0.35 m TAC-600	51303502660	1	1	1	1
08	REMOTE CONTROL(SET) RC-292 NO BRAND	51303541000	1	1	1	1
09	BLOWER WHEEL,618 mm G-2 (24 $^{2}/_{5}$ in)	51308501200	1	1	1	1
A	MOUNTING BRACKET G-2	51304463000	1	1	1	1
B	PIPES COVER G-2	51300900270	1	1	1	1
C	SENSOR HOLDER	51300902600	1	1	1	1
D	BODY ASSEMBLY G-2	51308500900	1	1	1	1
E	BRACKET RIGHT G-2, G-3 (MOTOR)	51300900600	1	1	1	1
F	BRACKET LEFT G-2, G-3 (MOTOR)	51300900700	1	1	1	1
G	GRILLE OUTLET & DRAIN PAN ASSEMBLY G-2	51308500700	1	1	1	1
H	FLAP 1	51300901100	1	1	1	1
J	FLAP 2	51300901200	1	1	1	1
K	SUPPORT	51300901900	2	2	2	2
P	MAIN BOARD FOR TAC 670A/B	51603517100	1	1	1	1
N	CONTROL FOR DC MOTOR	51603512800	1	1	1	1
T	GRILLE ASSEMBLY, FRAME G-2	51308500800	1	1	1	1
V	SERVICE COVER G-2	51300902710	1	1	1	1
W	INLET GRILLE OVAL ASSEMBLY NL G-2 ICP	51300903400	1	1	1	1
X	FILTER AIR G-2	51300901600	2	2	2	2
Y	COLLECTOR G-2	51300908000	2	2	2	2
Z	IAQ FILTER	51301030400	2	2	2	2
AA	DRAIN HOSE L=550 mm G-2 (21 $^{3}/_{5}$ in)	51308500400	1	1	1	1
BB	BRACKET ASSEMBLY LEFT	51308500200	1	1	1	1
CC	CABLE STEPPING MOTOR	51303540900	1	1	1	1
GG	EXTENSION CABLE TH-3 TAC-600 L=10m	51308971920	–	–	1	1

DFC2A309J1A, DFC2H309J1A

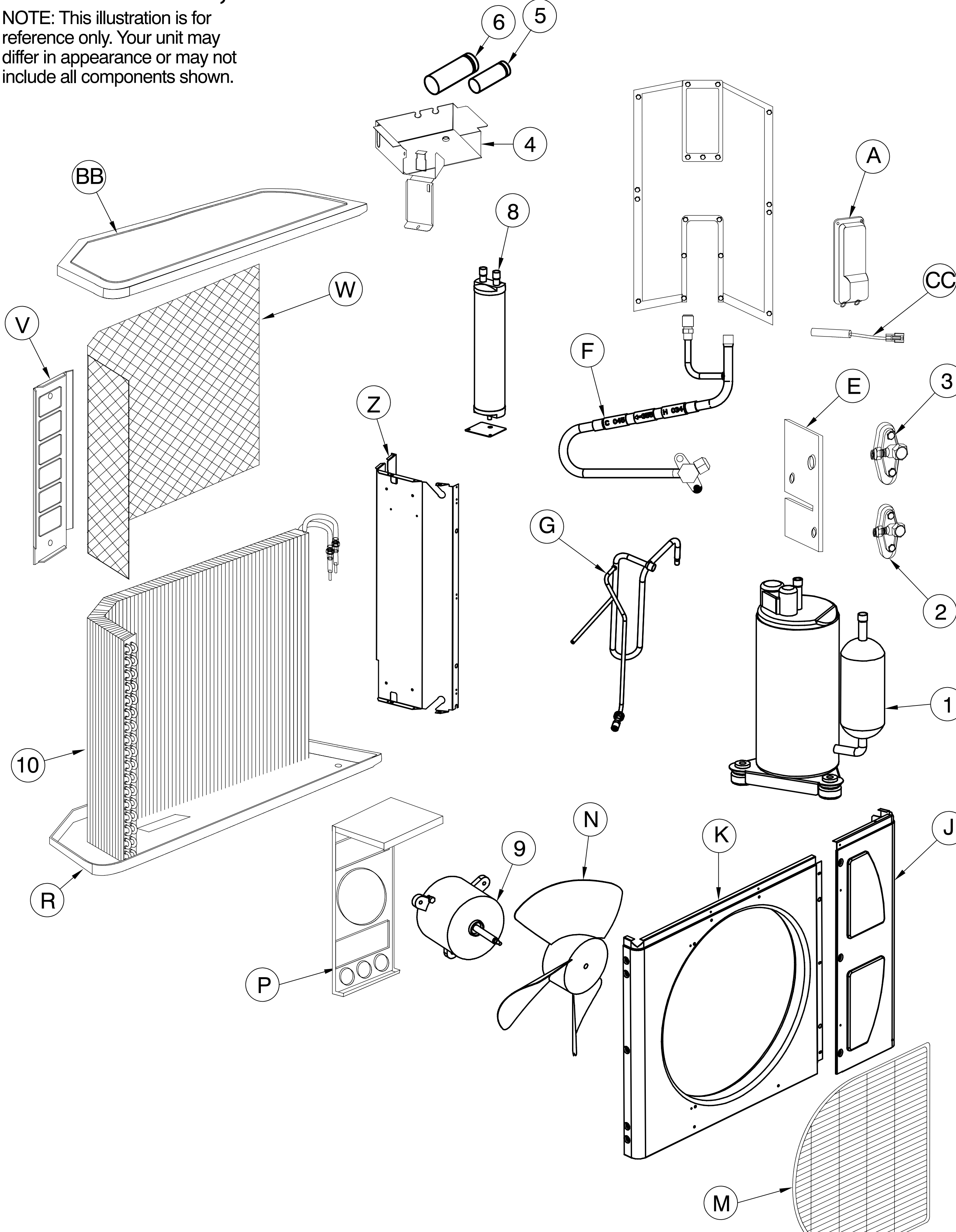
NOTE: This illustration is for reference only. Your unit may differ in appearance or may not include all components shown.



DFC209

DFC2A312J1A, DFC2H312J1A

NOTE: This illustration is for reference only. Your unit may differ in appearance or may not include all components shown.



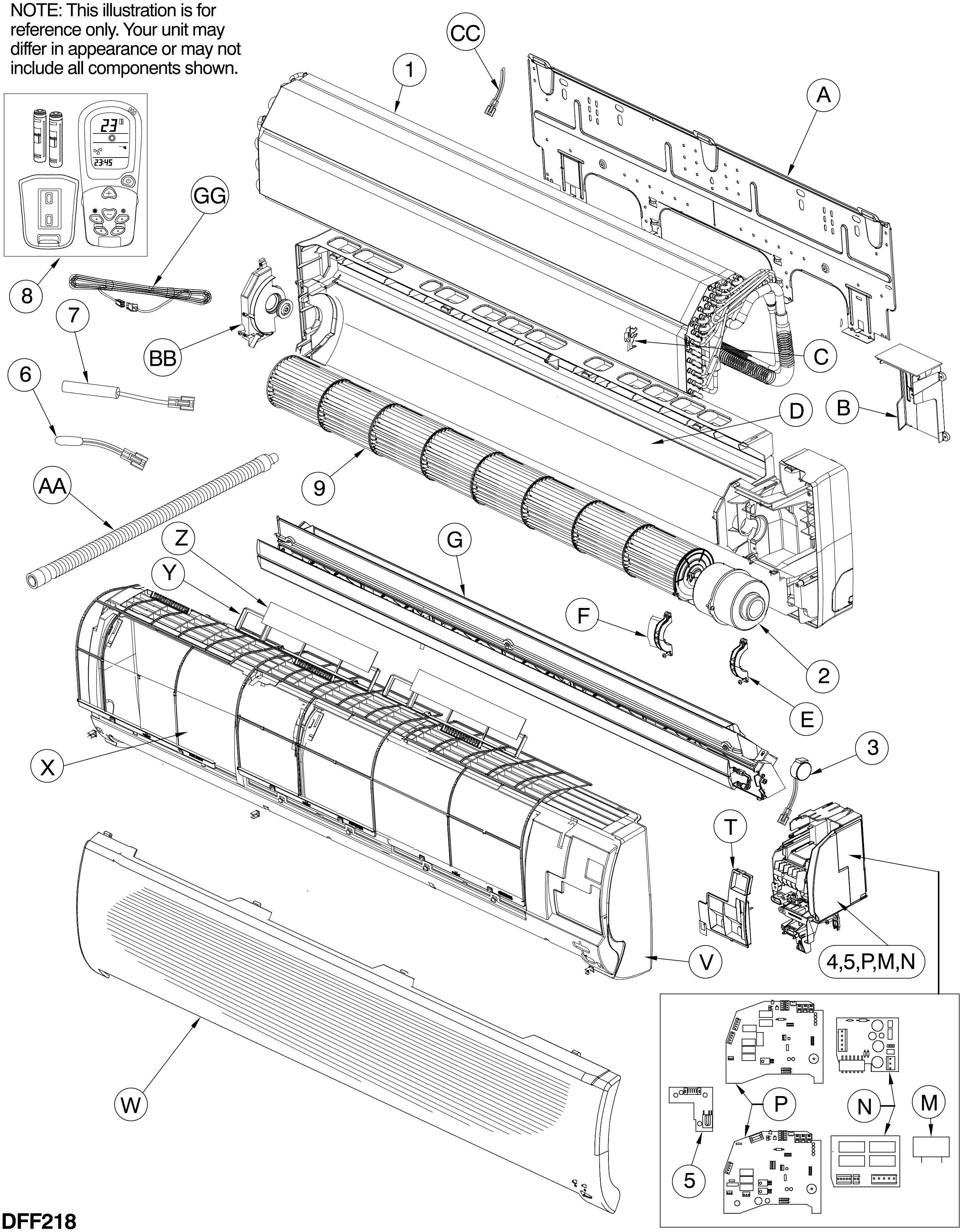
DFC212

DFC2A/H 09 & 12 PARTS LIST OUTDOOR						
KEY NO.	DESCRIPTION	PART NO.	DFC2A309J1A	DFC2A312J1A	DFC2H309J1A	DFC2H312J1A
01	COMPRESSOR MATSUSHITA 2R13S126A6F	51301484085	1	–	1	–
01	COMPRESSOR MATSUSHITA 2P17S3R126B1A	51301484113	–	1	–	1
02	VALVE 1/4" FOR GAS R-22	51303064510	1	1	1	1
03	VALVE 1/2" FOR GAS R-22	51303064810	1	–	1	–
03	VALVE ASSEMBLY 1/2"	51305815240	–	1	–	1
04	ELECTRIC BOX ASSEMBLY 115V/60HZ	51308396000	1	–	1	–
04	CONNECTION BOX ASSEMBLY 115V/60HZ	51308385250	–	1	–	1
05	FAN MOTOR CAPACITOR 8 _F 370V	51301830800	1	1	1	1
06	COMPRESSOR CAPACITOR 35 _F 370V	51301833500	1	–	1	–
06	COMPRESSOR CAPACITOR 45 _F 370V	51301834500	–	1	–	1
07	POWER SUPPLY HITRON HVI102-25	51303525100	1	–	1	–
08	ACCUMULATOR ASSEMBLY	51305890420	1	–	1	–
08	ACCUMULATOR ASSEMBLY	51305890500	–	1	–	1
09	FAN MOTOR COND 380mm 115V/60HZ (15 in)	51301333100	1	–	1	–
09	VALVE ASSEMBLY 1/4"	51301323500	–	1	–	1
10	COIL CONDENSER ASSEMBLY	51308280300	1	–	1	–
10	COIL CONDENSER ASSEMBLY	51308281000	–	1	–	1
A	SIDE COVER 2	51301276400	1	–	1	–
A	COVER FOR CONNECTION BOX	51301238100	–	1	–	1
B	CONTROL SIDE COVER ASSEMBLY	51308451200	–	1	–	1
C	SPARK PROTECTOR SIDE COVER UP	51304440900	1	–	1	–
D	SPARK PROTECTOR SIDE COVER DOWN	51304480900	1	–	1	–
E	VALVE BASE TGL-1209H	51304477820	1	–	1	–
E	VALVE BASE	51304469900	–	1	–	1
F	PISTON ASSEMBLY	51305890390	1	–	–	–
F	PISTON ASSEMBLY	51305890460	–	1	–	–
F	PISTON ASSEMBLY	51305893040	–	–	1	–
F	PISTON ASSEMBLY	51305893060	–	–	–	1
G	TUBE COMP.-DISCHARGE 3/8" ASSEMBLY	51305892460	1	–	–	–
G	TUBE COMP.-DISCHARGE 3/8" ASSEMBLY	51305892630	–	1	–	–
G	4 WAY VALVE ASSEMBLY	51305890370	–	–	1	–
G	4 WAY VALVE ASSEMBLY	51305890510	–	–	–	1
H	SUPPORT PROFILE FOR FAN MOTOR	51304466800	2	–	2	–
J	FRONT COVER OPTION 1	51301276100	1	–	1	–
J	CORNER COVER ASSEMBLY	51308451010	–	1	–	1
K	FAN BLADES HOUSING	51304401100	–	1	–	1
M	FRONT GRILLE	51301276300	1	–	1	–
M	FRONT GRILLE	51304405400	–	1	–	1
N	FAN CONDENSER, 4 BLADES	51302135800	1	–	1	–
N	FAN CONDENSER, 3 BLADES 500 mm (19 $^{7}/_{10}$ in)	51302135300	–	1	–	1
P	SUPPORT FAN MOTOR	51304460400	1	–	1	–
P	SUPPORT FAN MOTOR	51304402800	–	1	–	1
R	CONDENSER BASE WELDED	51304483300	1	–	1	–

DFC2A/H 09 & 12 PARTS LIST OUTDOOR (continued)						
KEY NO.	**DESCRIPTION**	**PART NO.**	**DFC2A309J1A**	**DFC2A312J1A**	**DFC2H309J1A**	**DFC2H312J1A**
R	CONDENSER BASE WELDED	51304484200	–	1	–	1
T	COIL HOLDER	51304460600	1	–	1	–
V	REAR SUPPORT	51304411100	–	1	–	1
W	BACK COVER	51301276200	1	–	1	–
W	NET CONDENSER COIL	51301270220	–	1	–	1
Y	SPARK PROTECTOR BACK COVER	51304479900	1	–	1	–
Z	PARTITION CONDENSER	51304460300	1	–	1	–
Z	PARTITION ASSEMBLY	51308450900	–	1	–	1
BB	TOP COVER ASSEMBLY	51308450400	–	1	–	1
CC	SENSOR TH–3 0.7m	51303502110	–	–	1	1

DFF2AH18J1A, DFF2AH24K1A,DFF2HH18J1A, DFF2HH24K1A

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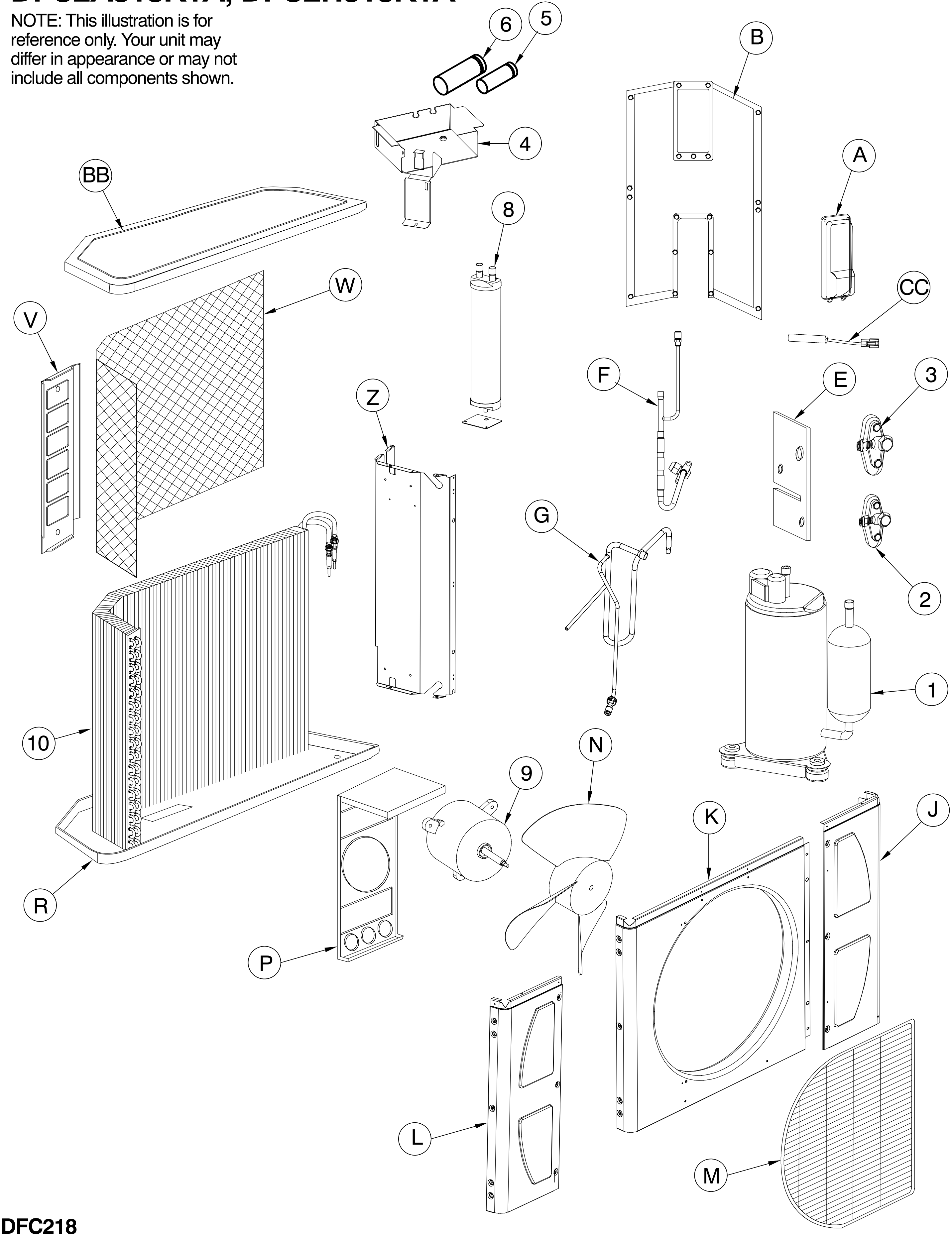


DFF218

DFF2A/H 18 & 24 PARTS LIST INDOOR						
KEY NO.	DESCRIPTION	PART NO.	DFF2AH18J1A	DFF2AH24K1A	DFF2HH18J1A	DFF2HH24K1A
01	EVAPORATOR COIL ASSEMBLY	51308470550	1	1	1	1
02	FAN MOTOR EVAPORATOR BLDC	51301323700	1	–	1	–
02	FAN MOTOR EVAPORATOR	51301334200	–	1	–	1
03	STEPPING MOTOR	51301300400	1	1	1	1
04	ELECTRONIC CONTROL BOX ASSEMBLY TAC-670B	51603540500	1	–	1	–
04	ELECTRONIC CONTROL BOX ASSEMBLY TAC-670C	51603540600	–	1	–	1
05	DISPLAY CARD TAC-60XTG	51603516600	1	1	1	1
06	SENSOR TH-1 0.35 m TAC-600	51303502790	1	1	1	1
07	SENSOR TH-2 0.35 m TAC-600	51303502660	1	1	1	1
08	REMOTE CONTROL(SET) RC-292 NO BRAND	51303541000	1	1	1	1
09	BLOWER WHEEL,106 mm G-3 (4 $^1/_5$ in)	51302132800	1	1	1	1
A	MOUNTING BRACKET G-3	51304478800	1	1	1	1
B	PIPES COVER G-3	51301291600	1	1	1	1
C	SENSOR HOLDER	51300902600	1	1	1	1
D	BODY ASSEMBLY G-3	51308443300	1	1	1	1
E	BRACKET RIGHT G-2, G-3 (MOTOR)	51300900600	1	1	1	1
F	BRACKET LEFT G-2, G-3 (MOTOR)	51300900700	1	1	1	1
G	GRILLE OUTLET & DRAIN PAN ASSEMBLY G-3	51308443280	1	1	1	1
M	CAPACITOR RUN MOTOR 2 _F 450V UL BOX	51601860200	–	1	–	1
N	CONTROL FOR DC MOTOR	51603512000	1	–	1	–
N	RELAY BOARD TAC670C/D	51603517700	–	1	–	1
P	MAIN BOARD 670C/D	51603536700	–	1	–	1
P	MAIN BOARD 670A/B	51603517100	1	–	1	–
R	CAPACITOR 1.5 _F 400V	51301840015	–	1	–	1
T	GRILLE ASSEMBLY, FRAME G-3	51308443310	1	1	1	1
V	SERVICE COVER G-3	51300908200	1	1	1	1
W	INLET GRILLE OVAL ASSEMBLY NL G-3 ICP	51300909000	1	1	1	1
X	FILTER AIR G-3	51301292800	2	1	2	1
Y	COLLECTOR G-3	51300908100	2	1	2	1
Z	IAQ FILTER	51301030400	2	1	2	1
AA	DRAIN HOSE L=750 mm G-3 (29 $^1/_2$ in)	51202360500	1	1	1	1
BB	BRACKET ASSEMBLY LEFT	51308502500	1	1	1	1
CC	CABLE STEPPING MOTOR	51303540900	1	1	1	1
GG	EXTENSION CABLE TH-3 TAC-600 L=10m	51308971920	–	–	1	1

DFC2A318K1A, DFC2H318K1A

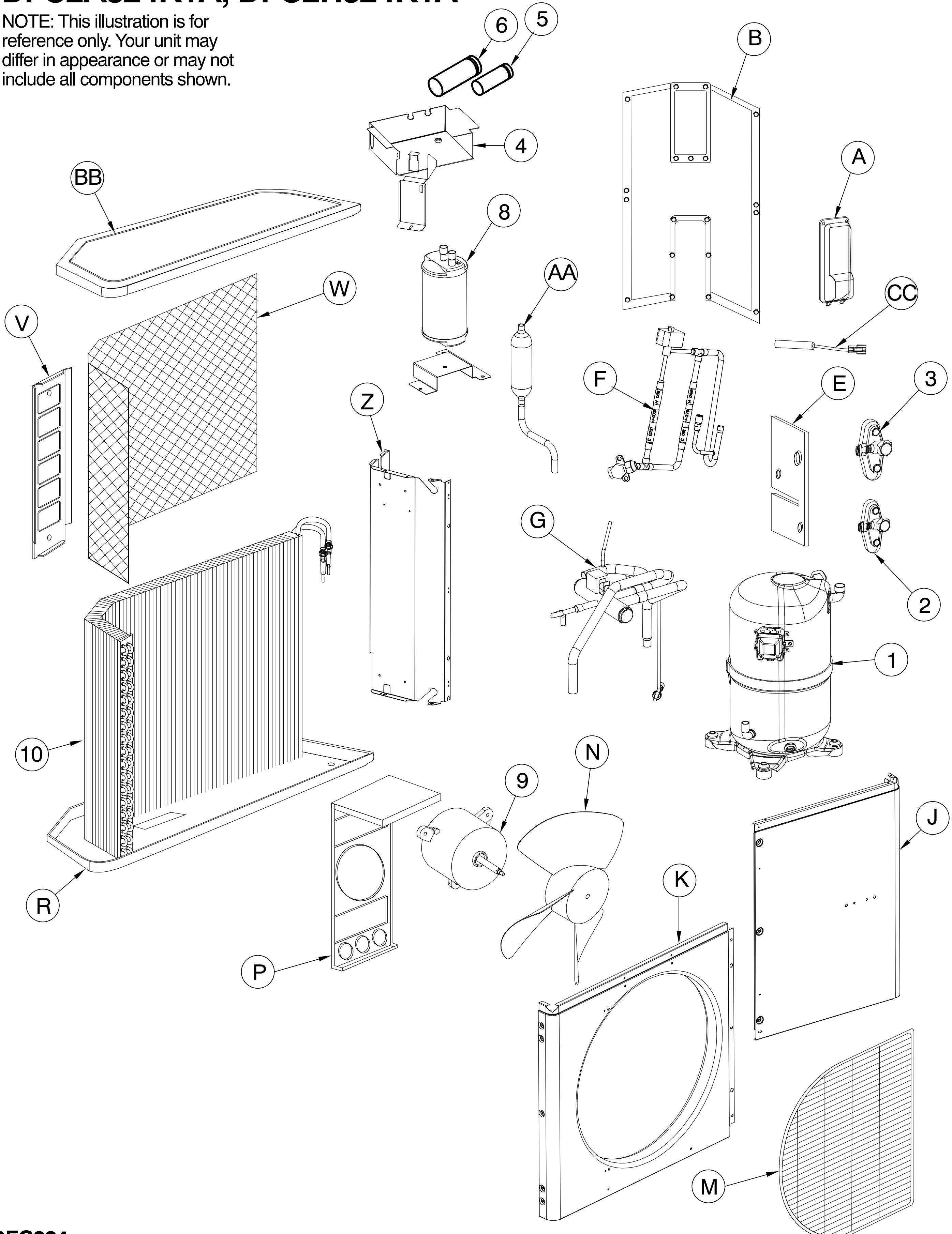
NOTE: This illustration is for reference only. Your unit may differ in appearance or may not include all components shown.



DFC218

DFC2A324K1A, DFC2H324K1A

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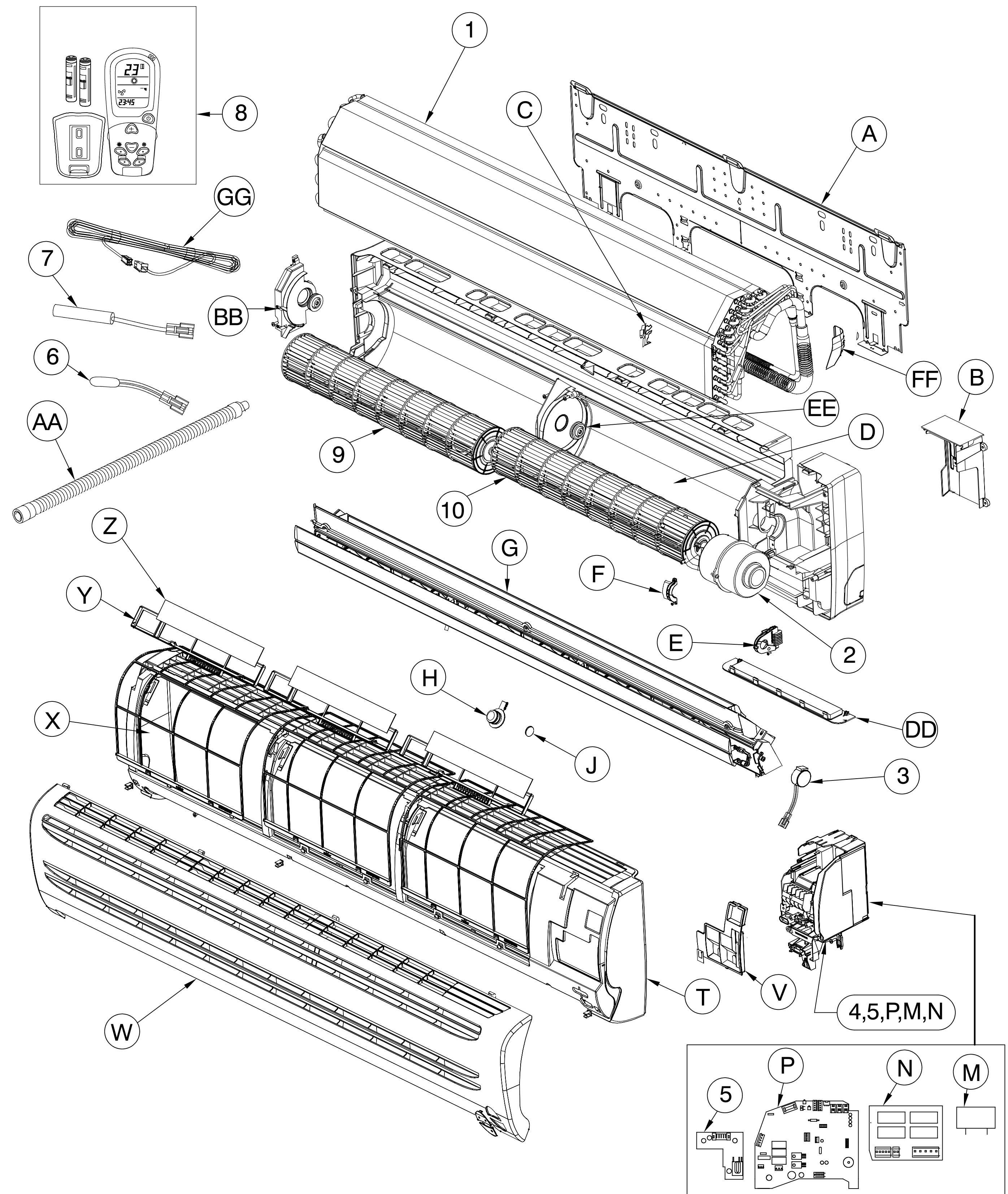


DFC224

DFC2A/H 18 & 24 PARTS LIST OUTDOOR						
KEY NO.	DESCRIPTION	PART NO.	DFC2A318J1A	DFC2A324J1A	DFC2H318J1A	DFC2H324J1A
01	COMPRESSOR MATSUSHITA 2K25S236AHA	51301494174	1	–	1	–
01	COMPRESSOR BRISTOL T21J225CBCA	51301495222	–	1	–	1
02	VALVE ASSEMBLY 3/8”	51303064710	1	–	1	–
02	VALVE ASSEMBLY 3/8”	51303064730	–	1	–	1
03	VALVE ASSEMBLY 5/8”	51305815260	1	1	1	1
04	CONNECTION BOX ASSEMBLY	51308385260	1	–	1	–
04	CONNECTION BOX ASSEMBLY	51308385270	–	1	–	1
05	FAN MOTOR CAPACITOR 5 _F	51301830500	1	1	1	1
06	COMPRESSOR CAPACITOR 40 _F 370V	51301834000	1	–	1	–
06	COMPRESSOR CAPACITOR 30 _F 370V	51301833000	–	1	–	1
08	ACCUMULATOR ASSEMBLY	51202362000	1	–	1	–
08	ACCUMULATOR ASSEMBLY	51305891150	–	1	–	1
09	FAN MOTOR CONDENSER 230V 50/60HZ	51301333500	1	1	1	1
10	COIL CONDENSER ASSEMBLY	51308297400	1	–	1	–
10	COIL CONDENSER ASSEMBLY	51308280400	–	1	–	1
A	COVER FOR CONNECTION BOX	51301238100	1	1	1	1
B	CONTROL SIDE COVER ASSEMBLY	51308451200	–	1	–	1
B	CONTROL SIDE COVER ASSEMBLY	51308451600	1	–	1	–
E	VALVE BASE	51304469900	1	1	1	1
F	PISTON ASSEMBLY	51305893210	1	–	–	–
F	PISTON ASSEMBLY	51305892180	–	1	–	1
F	PISTON ASSEMBLY	51305890610	–	–	1	–
G	TUBE COMP.-DISCHARGE 3/8” ASSEMBLY	51305893020	1	–	–	–
G	VALVE ASSEMBLY	51305892220	–	1	–	1
G	4 WAY VALVE ASSEMBLY	51305890590	–	–	1	–
J	RIGHT CORNER COVER ASSEMBLY	51304401400	1	–	1	–
J	RIGHT CORNER COVER ASSEMBLY	51308454500	–	1	–	1
K	FAN BLADES HOUSING	51304401200	1	–	1	–
K	FAN BLADES HOUSING	51304401100	–	1	–	1
L	CORNER COVER LEFT ASSEMBLY	51308451010	1	–	1	–
M	FRONT GRILLE	51304405400	1	1	1	1
N	FAN CONDENSER, 3 BLADES 500 mm (19 $^{7}/_{10}$ in)	51302135300	1	1	1	1
P	SUPPORT FAN MOTOR	51304402800	1	1	1	1
R	CONDENSER BASE WELDED	51304486300	1	–	1	–
R	CONDENSER BASE WELDED	51304488500	–	1	–	1
V	REAR SUPPORT	51304411100	1	1	1	1
W	NET CONDENSER COIL	51301299200	1	1	1	1
Z	PARTITION ASSEMBLY	51308450900	1	–	1	–
Z	PARTITION ASSEMBLY	51308448620	–	1	–	1
AA	SILENCER ASSEMBLY	51305892290	–	1	–	1
BB	TOP COVER ASSEMBLY	51308450500	1	1	1	1
CC	SENSOR TH-3 0.7m	51303502110	–	–	1	1

DFF2AH30K1A, DFF2AH36K1A,DFF2HH30K1A,DFF2HH36K1A

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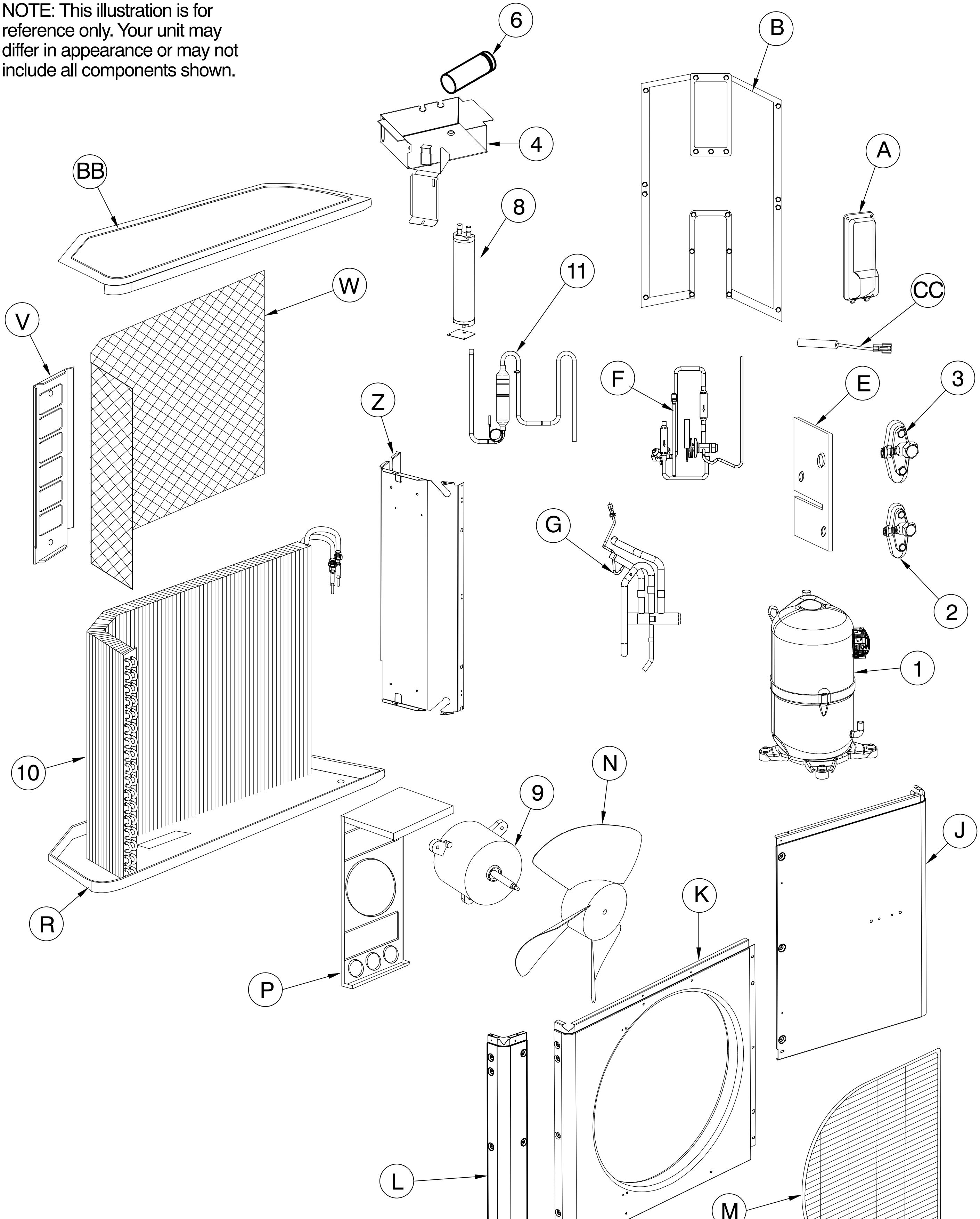


DFF230

DFF2A/H 30 & 36 PARTS LIST INDOOR						
KEY NO.	DESCRIPTION	PART NO.	DFF2AH30K1A	DFF2AH36K1A	DFF2HH30K1A	DFF2HH36K1A
01	EVAPORATOR COIL ASSEMBLY G-5	51308296750	1	1	1	1
02	FAN MOTOR EVAP G-5 230V-50/60HZ	51301333300	1	1	1	1
03	STEPPING MOTOR	51301358500	1	1	1	1
04	ELECTRONIC CONTROL BOX ASSEMBLY TAC-670	51603540700	1	1	1	1
05	DISPLAY CARD TAC-60XTG	51603516600	1	1	1	1
06	SENSOR TH-1 0.35 m TAC-600	51303502790	1	1	1	1
07	SENSOR TH-2 0.35 m TAC-600	51303502660	1	1	1	1
08	REMOTE CONTROL(SET)RC-292 NO BRAND	51303541000	1	1	1	1
09	BLOWER WHEEL, LEFT 106 mm G-5 (5 $^{1}/_{5}$ in)	51302132500	1	1	1	1
10	BLOWER WHEEL RIGHT 106 mm G-5 (5 $^{1}/_{5}$ in)	51302132400	1	1	1	1
A	MOUNTING BRACKET G-4,G-5	51304467600	1	1	1	1
B	PIPES COVER G-5	51301289400	1	1	1	1
C	SENSOR HOLDER	51300902600	1	1	1	1
D	BODY ASSEMBLY G-5	51308501400	1	1	1	1
E	BRACKET RIGHT G-5 FOR MOTOR	51301289500	1	1	1	1
F	BRACKET LEFT G-5 FOR MOTOR	51301289600	1	1	1	1
G	GRILLE OUTLET&DRAIN PAN ASSEMBLY G-4,G-5	51308506800	1	1	1	1
H	DRAIN PAN PLUG G-4,G-5	51301250700	1	1	1	1
J	EXPANDER, DRAIN PLUG G-4,G-5	51303010800	1	1	1	1
M	CAPACITOR RUN MOTOR 2_F 450V UL BOX	51601860200	1	1	1	1
N	RELAY BOARD TAC 670C/D	51603517700	1	1	-	-
P	MAIN BOARD FOR TAC670C/D	51603536700	1	1	1	1
T	GRILLE ASSEMBLY, FRAME G-4,G-5	51308501700	1	1	1	1
V	SERVICE COVER G-5	51300905600	1	1	1	1
W	INLET GRILLE ASSEMBLY NL G-4,G-5 TQL	51308448590	1	1	1	1
X	AIR FILTER G-5	51301289800	3	3	3	3
Y	COLLECTOR G-5	51300907000	2	2	2	2
Z	IAQ FILTER	51301030400	2	2	2	2
AA	DRAIN HOSE L=600 mm (23 $^{3}/_{5}$ in)	51202360300	1	1	1	1
BB	BRACKET ASSY LEFT G-5	51308443270	1	1	1	1
DD	BOTTOM COVER ASSEMBLY G-4,G-5	51308502400	1	1	1	1
EE	BRACKET ASSY CENTER G-5	51308443260	1	1	1	1
FF	BENDS PLASTIC PROTECTING PIPES G-4,G-5	51300915300	1	1	1	1
GG	EXTENSION CABLE TH-3 10m TAC-600 RoHS	51608971920	-	-	1	1

DFC2A330K1A, DFC2A336K1A, DFC2H330K1A, DFC2H336K1A

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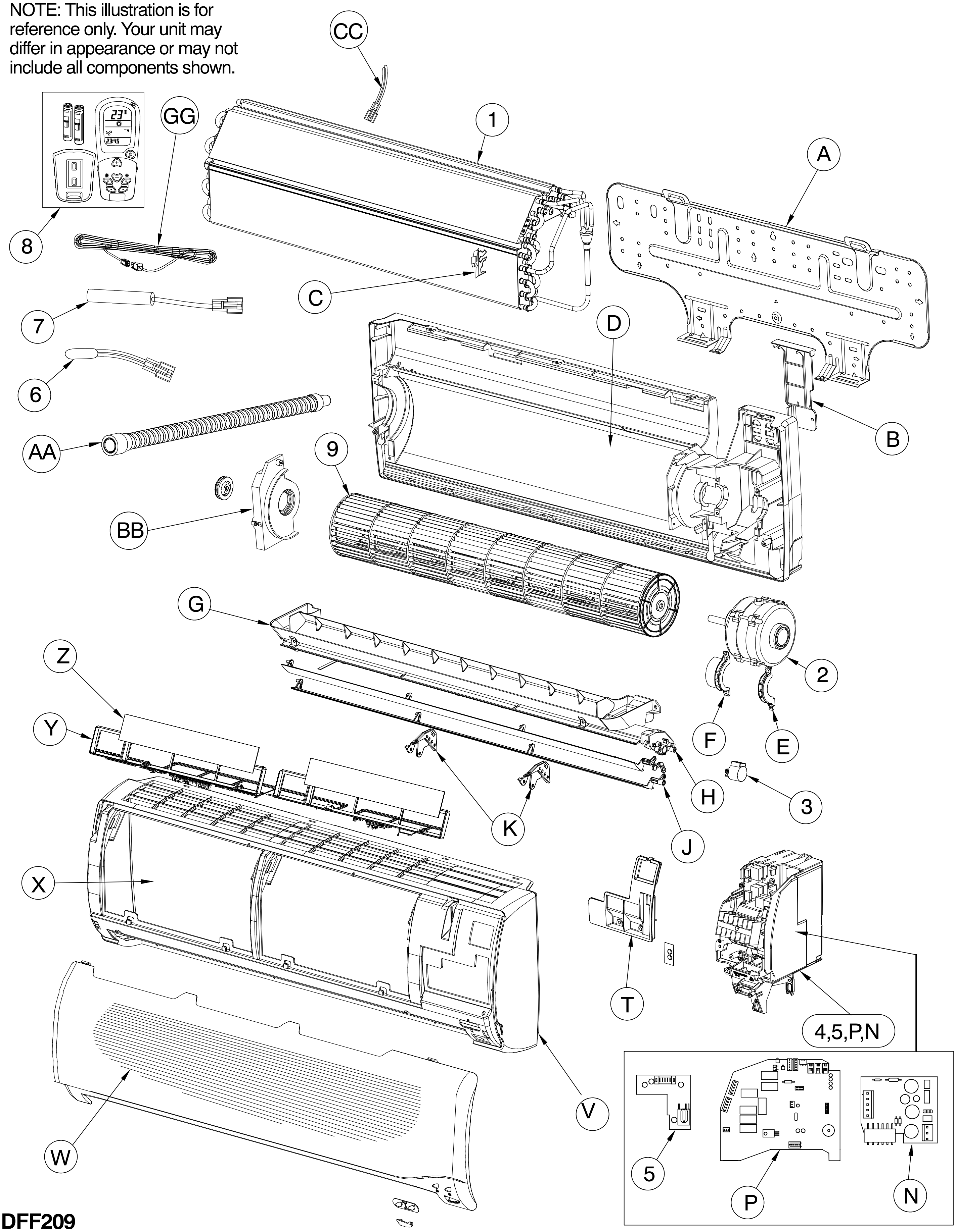
DFC230

DFC2A/H 30 & 36 PARTS LIST OUTDOOR						
KEY NO.	DESCRIPTION	PART NO.	DFC2A330K1A	DFC2A336K1A	DFC2H330K1A	DFC2H336K1A
01	COMPRESSOR BRISTOL T21J265CBCA	51301495259	1	–	1	–
01	COMPRESSOR BRISTOL T21J334CBCA	51301495333	–	1	–	1
02	VALVE ASSEMBLY 3/8”	51303064710	1	1	1	1
03	VALVE ASSEMBLY 3/4”	51305892740	1	1	1	1
04	CONNECTION BOX ASSEMBLY	51308405600	1	–	1	–
04	CONNECTION BOX ASSEMBLY	51308405700	–	1	–	1
06	COMPRESSOR CAPACITOR 40 _F 370V	51301834000	1	–	1	–
06	COMPRESSOR CAPACITOR 50 _F 370V	51301835000	–	1	–	1
08	ACCUMULATOR TGL–2035/2050	51202313800	1	1	1	1
09	FAN MOTOR CONDENSER	51301333500	1	1	1	1
10	COIL CONDENSER ASSEMBLY	51308297300	1	1	1	1
11	OIL SEPARATOR ASSEMBLY	51305892450	1	1	1	1
A	COVER FOR CONNECTION BOX RoHS	51601238100	1	1	1	1
B	CONTROL SIDE COVER ASSEMBLY	51308448250	1	1	1	1
E	VALVE BASE	51304469900	1	1	1	1
F	PISTON ASSEMBLY	51305892430	1	1	1	1
G	4–WAY VALVE ASSEMBLY	51305892500	1	1	1	1
J	CORNER COVER RIGHT ASSEMBLY	51308448230	1	1	1	1
K	FAN BLADES HOUSING	51304401200	1	1	1	1
L	CORNER COVER LEFT ASSEMBLY	51304475300	1	1	1	1
M	NET WIRE FAN BLADES	51304405400	1	1	1	1
N	FAN CONDENSER, 3 BLADS 500 mm (19 $^{7}/_{10}$ in)	51302135300	1	1	1	1
P	FAN MOTOR SUPPORT	51304402800	1	1	1	1
R	CONDENSER BASE WELDED	51304490300	1	1	1	1
V	REAR SUPPORT	51304411100	1	1	1	1
W	NET CONDENSER COIL	51301270240	1	1	1	1
Z	PARTITION ASSEMBLY	51308477900	1	1	1	1
BB	TOP COVER ASSEMBLY	51308460200	1	1	1	1
CC	SENSOR TH–3 0.7m	51303064710	–	–	1	1

Specifications subject to change without notice.

DFF2AH09J1A, DFF2AH12J1A, DFF2HH09J1A, DFF2HH12J1A

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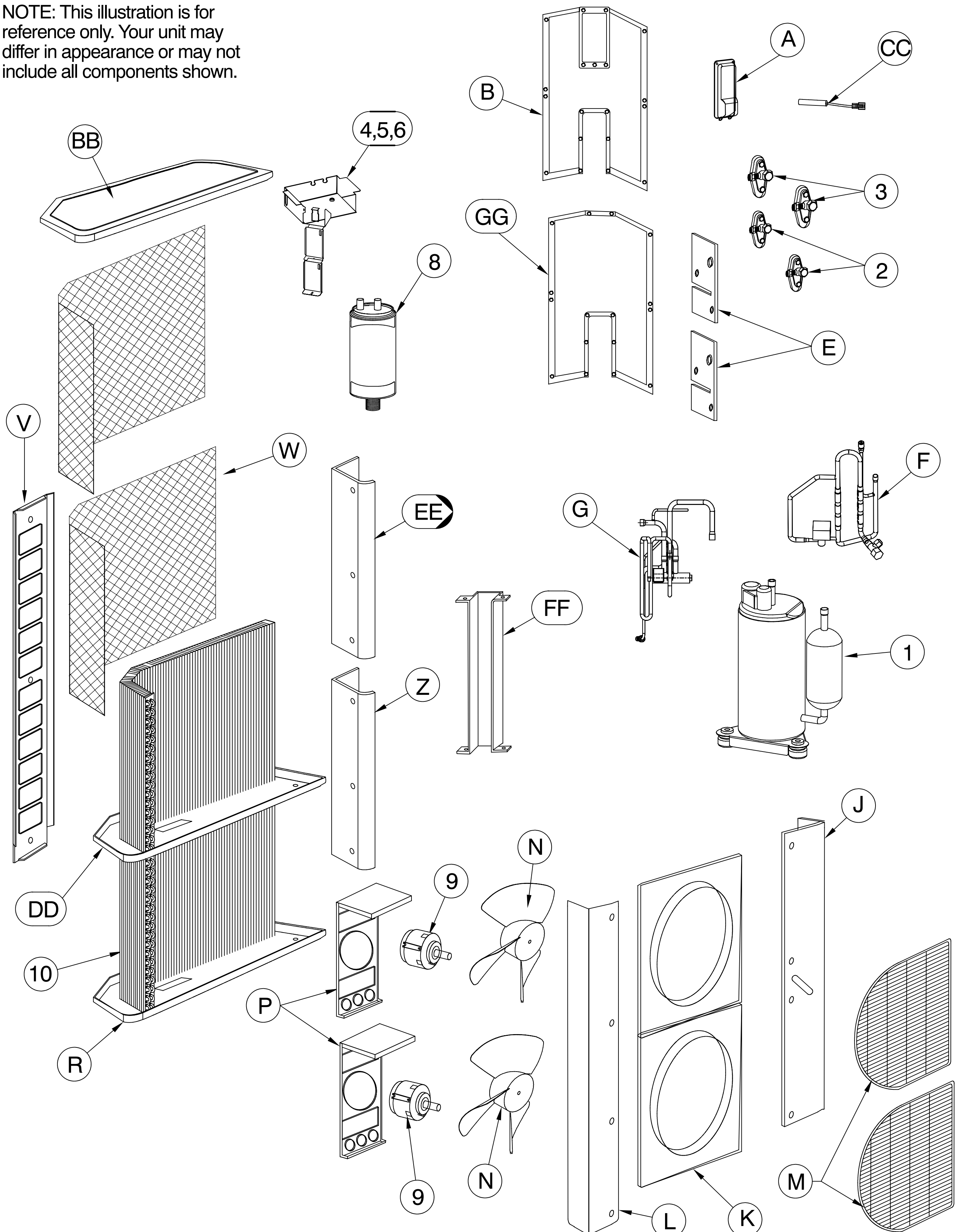


DFF209

DFF2A/H 09 & 12 PARTS LIST INDOOR (DUAL)						
KEY NO.	DESCRIPTION	PART NO.	DFF2AH09J1A	DFF2AH12J1A	DFF2HH09J1A	DFF2HH12J1A
01	EVAPORATOR COIL ASSEMBLY	51308470400	1	1	1	1
02	FAN MOTOR EVAPORATOR BLDC	51301323600	1	1	1	1
03	STEPPING MOTOR	51301300400	1	1	1	1
04	ELECTRONIC CONTROL BOX ASSEMBLY TAC-670A	51603540400	1	1	1	1
05	DISPLAY CARD TAC-601	51603516600	1	1	1	1
06	SENSOR TH-1 0.35 m TAC-600	51303502790	1	1	1	1
07	SENSOR TH-2 0.35 m TAC-600	51303502660	1	1	1	1
08	REMOTE CONTROL(SET) RC-292 NO BRAND	51303541000	1	1	1	1
09	BLOWER WHEEL,618 mm G-2 (24 $^2/_5$ in)	51308501200	1	1	1	1
A	MOUNTING BRACKET G-2	51304463000	1	1	1	1
B	PIPES COVER G-2	51300900270	1	1	1	1
C	SENSOR HOLDER	51300902600	1	1	1	1
D	BODY ASSEMBLY G-2	51308500900	1	1	1	1
E	BRACKET RIGHT G-2, G-3 (MOTOR)	51300900600	1	1	1	1
F	BRACKET LEFT G-2, G-3 (MOTOR)	51300900700	1	1	1	1
G	GRILLE OUTLET & DRAIN PAN ASSEMBLY G-2	51308500700	1	1	1	1
H	FLAP 1	51300901100	1	1	1	1
J	FLAP 2	51300901200	1	1	1	1
K	SUPPORT	51300901900	2	2	2	2
P	BOARD TAC 601	51603517100	1	1	1	1
N	CONTROL FOR DC MOTOR TAC672 A	51603512800	1	1	1	1
T	GRILLE ASSEMBLY, FRAME G-2	51308500800	1	1	1	1
V	SERVICE COVER G-2	51300902710	1	1	1	1
W	INLET GRILLE OVAL ASSEMBLY NL G-2 ICP	51300903400	1	1	1	1
AA	DRAIN HOSE L=550 mm G-2 (21 $^3/_5$ in)	51308500400	1	1	1	1
BB	BRACKET ASSEMBLY LEFT	51308500200	1	1	1	1
CC	CABLE STEPPING MOTOR	51303540900	1	1	1	1
GG	EXTENSION CABLE TH-3 TAC-600 L=10m	51608971920	–	–	1	1
K	SENSOR	51300901900	2	2	2	2
X	FILTER AIR G-2	51300901600	2	2	2	2
Y	COLLECTOR G-2	51300908000	2	2	2	2
Z	IAQ FILTER	51301030400	2	2	2	2

DFC2A318J2A, DFC2A324J2A,DFC2H318J2A,DFC2H324J2A

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DFCJ2A

DFC2A/H 18 & 24 PARTS LIST OUTDOOR (DUAL)						
KEY NO.	DESCRIPTION	PART NO.	DFC2H318J2A	DFC2H324J2A	DFC2A318J2A	DFC2A324J2A
01	COMPRESSOR 2R135S126A6F	51301484085	2	–	2	–
01	COMPRESSOR 2P17SR126B1A	51301484113	–	2	–	2
02	VALVE ASSEMBLY 1/4” R-22	51303064510	2	2	2	2
03	VALVE ASSEMBLY 1/2”	51305815240	2	2	2	2
04	CONNECTION BOX ASSY 115V	51308385280	1	1	1	1
05	RELAY BOARD ASSY	51303512900	2	2	2	2
06	POWER SUPPLY HITRON HVI102-25	51303525100	2	2	2	2
08	ACCUMULATOR RoHS	51602362000	2	2	2	2
09	FAN MOTOR COND 115V/60HZ	51301323500	2	2	2	2
10	COIL CONDENSER ASSEMBLY	51308281000	2	2	2	2
A	COVER FOR CONN BOX RoHS	51601238100	1	1	1	1
B	CONTROL SIDE COVER	51304408000	1	1	1	1
E	VALVE BASE	51304469900	2	2	2	2
F	EXPANSION SYSTEM DGL-1209H	51305894160	2	–	–	–
F	EXPANSION SYSTEM TGL-1212H	51305893060	–	2	–	–
F	PISTON ASSEMBLY	51305890460	–	–	1	1
G	VALVE ASSY DGL-1209H	51305894130	2	–	–	–
G	VALVE ASSY TGL-1212H	51305890510	–	2	–	–
G	TUBE COMP.-DISCH. 3/8” ASSY	51605845080	–	–	1	1
J	RIGHT CORNER COVER	51304415600	1	1	1	1
K	FAN BLADES HOUSING	51304401200	2	2	2	2
L	LEFT CORNER COVER	51304492800	1	1	1	1
M	NET WIRE FAN BLADES	51304405400	2	2	2	2
N	FAN CONDENSER 3 BLADES	51302135300	2	2	2	2
P	FAN MOTOR SUPPORT	51304402800	2	2	2	2
R	COND.LOWER BASE WELDED	51304409000	1	1	1	1
V	REAR SUPPORT	51304406000	1	1	1	1
W	NET CONDENSER COIL	51301270210	2	2	2	2
Z	PARTITION BOTTOM COND	51304408900	1	1	1	1
BB	TOP COVER ASSY - COND MED	51308473200	1	1	1	1
CC	SENSOR TH-2/3 0.7M RoHS	51603502110	2	2	–	–
DD	COND.UPPER BASE WELDED	51304409100	1	1	1	1
EE	PARTITION UPPER CONDENSER	51304408800	1	1	1	1
FF	SUPPORT STAND	51304405900	1	1	1	1
GG	BOTTOM CONTROL SIDE COVER	51304419400	1	1	1	1

DFC2A/DFC2H Thermistor TH-1, TH-2, and TH-3 Temperature to Resistance Conversion

TEMPERATURE (○F)	TEMPERATURE (○C)	TEMPERATURE TOLERANCE (○F)	TEMPERATURE TOLERANCE (○C)	MINIMUM RESISTANCE (KΩ)	MEAN RESISTANCE (KΩ)	MAXIMUM RESISTANCE (KΩ)
-4.0	-20	±2.0	±1.1	30.89	32.44	34.05
-2.2	-19	±2.0	±1.1	29.46	30.93	32.45
-0.4	-18	±2.0	±1.1	28.12	29.51	30.94
1.4	-17	±2.0	±1.1	26.84	28.16	29.51
3.2	-16	±2.0	±1.1	25.64	26.88	28.15
5.0	-15	±2.0	±1.1	24.49	25.66	26.87
6.8	-14	±2.0	±1.1	23.40	24.52	25.66
8.6	-13	±2.0	±1.1	22.38	23.43	24.50
10.4	-12	±2.0	±1.1	21.40	22.39	23.41
12.2	-11	±2.0	±1.1	20.47	21.41	22.38
14.0	-10	±1.8	±1.0	19.59	20.48	21.40
15.8	-9	±1.8	±1.0	18.74	19.59	20.45
17.6	-8	± 1.8	±1.0	17.94	18.74	19.56
19.4	-7	±1.8	±1.0	17.17	17.93	18.71
21.2	-6	±1.8	±1.0	16.44	17.16	17.90
23.0	-5	±1.8	±1.0	15.75	16.43	17.13
24.8	-4	±1.8	±1.0	15.10	15.74	16.40
26.6	-3	±1.8	±1.0	14.47	15.08	15.71
28.4	-2	±1.8	±1.0	13.87	14.46	15.05
30.2	-1	±1.8	±1.0	13.31	13.86	14.42
32.0	0	±1.8	±1.0	12.77	13.29	13.83
33.8	1	±1.8	±1.0	12.25	12.74	13.25
35.6	2	±1.8	±1.0	11.75	12.22	12.70
37.4	3	±1.8	±1.0	11.28	11.73	12.18
39.2	4	±1.8	±1.0	10.83	11.25	11.68
41.0	5	±1.8	±1.0	10.40	10.80	11.21
42.8	6	±1.8	±1.0	9.986	10.370	10.76
44.6	7	±1.8	±1.0	9.595	9.960	10.33
46.4	8	±1.8	±1.0	9.222	9.569	9.921
48.2	9	±1.8	±1.0	8.866	9.196	9.530
50.0	10	±1.8	±1.0	8.526	8.840	9.157
51.8	11	±1.8	±1.0	8.197	8.496	8.797
53.6	12	±1.8	±1.0	7.883	8.167	8.453
55.4	13	±1.6	±0.9	7.583	7.853	8.125
57.2	14	±1.6	±0.9	7.296	7.553	7.812
59.0	15	±1.6	±0.9	7.022	7.267	7.513
60.8	16	±1.6	±0.9	6.761	6.993	7.227
62.6	17	±1.6	±0.9	6.510	6.731	6.954
64.4	18	±1.6	±0.9	6.271	6.481	6.693
66.2	19	±1.6	±0.9	6.042	6.242	6.444
68.0	20	±1.6	±0.9	5.822	6.013	6.205
69.8	21	±1.6	±0.9	5.611	5.793	5.975
71.6	22	±1.6	±0.9	5.408	5.581	5.755
73.4	23	±1.6	±0.9	5.214	5.379	5.544
75.2	24	±1.6	±0.9	5.028	5.185	5.343

TEMPERATURE (○F)	TEMPERATURE (○C)	TEMPERATURE TOLERANCE (○F)	TEMPERATURE TOLERANCE (○C)	MINIMUM RESISTANCE (KΩ)	MEAN RESISTANCE (KΩ)	MAXIMUM RESISTANCE (KΩ)
77.0	25	±1.6	±0.9	4.850	5.000	5.150
78.8	26	±1.6	±0.9	4.675	4.821	4.968
80.6	27	±1.6	±0.9	4.508	4.650	4.793
82.4	28	±1.6	±0.9	4.347	4.486	4.626
84.2	29	±1.8	±1.0	4.193	4.329	4.466
86.0	30	±1.8	±1.0	4.046	4.179	4.312
87.8	31	±1.8	±1.0	3.904	4.033	4.163
89.6	32	±1.8	±1.0	3.767	3.894	4.020
91.4	33	±1.8	±1.0	3.637	3.760	3.884
93.2	34	±1.8	±1.0	3.511	3.631	3.752
95.0	35	±1.8	±1.0	3.391	3.508	3.626
96.8	36	±2.0	±1.1	3.275	3.390	3.505
98.6	37	±2.0	±1.1	3.164	3.276	3.389
100.4	38	±2.0	±1.1	3.058	3.167	3.277
102.2	39	±2.0	±1.1	2.956	3.062	3.169
104.0	40	±2.0	±1.1	2.857	2.961	3.066
105.8	41	±2.0	±1.1	2.762	2.864	2.966
107.6	42	±2.0	±1.1	2.671	2.770	2.870
109.4	43	±2.2	±1.2	2.583	2.679	2.777
111.2	44	±2.2	±1.2	2.498	2.593	2.688
113.0	45	±2.2	±1.2	2.417	2.509	2.602
114.8	46	±2.2	±1.2	2.339	2.429	2.520
116.6	47	±2.2	±1.2	2.264	2.352	2.441
118.4	48	±2.3	±1.3	2.192	2.227	2.364
120.2	49	±2.3	±1.3	2.122	2.206	2.291
122.0	50	±2.3	±1.3	2.055	2.137	2.220
123.8	51	±2.3	±1.3	1.990	2.070	2.151
125.6	52	±2.3	±1.3	1.928	2.006	2.085
127.4	53	±2.3	±1.3	1.867	1.943	2.021
129.2	54	±2.3	±1.3	1.809	1.883	1.959
131.0	55	±2.5	±1.4	1.753	1.826	1.900
132.8	56	±2.5	±1.4	1.699	1.770	1.842
134.6	57	±2.5	±1.4	1.647	1.717	1.787
136.4	58	±2.5	±1.4	1.597	1.665	1.734
138.2	59	±2.5	±1.4	1.549	1.615	1.683
140.0	60	±2.5	±1.4	1.503	1.567	1.633
141.8	61	±2.7	±1.5	1.458	1.521	1.585
143.6	62	±2.7	±1.5	1.414	1.476	1.539
145.4	63	±2.7	±1.5	1.372	1.432	1.494
147.2	64	±2.7	±1.5	1.332	1.391	1.451
149.0	65	±2.7	±1.5	1.293	1.350	1.409
150.8	66	±2.9	±1.6	1.255	1.311	1.369
152.6	67	±2.9	±1.6	1.219	1.274	1.330
154.4	68	±2.9	±1.6	1.184	1.237	1.292
156.2	69	±2.9	±1.6	1.150	1.202	1.256
158.0	70	±2.9	±1.6	1.117	1.168	1.221

NOTE: Resistance tolerance ± 3%.

General System Troubleshooting Guide

SYMPTOM	PROBABLE CAUSE	CORRECTIVE ACTION
Unit Fails to Start.	Power supply from outdoor unit to indoor unit is not connected. Power supply to unit not connected (POWER LED Off).	Check for proper connection of power at disconnect.
	Fuse blown (POWER LED Off).	Reset circuit breaker or replace line fuse.
	ON/SEND button has not been pressed.	Press ON/SEND button on remote control.
	Indoor unit does not receive transmitted commands.	Make sure that nothing is blocking the remote control transmission to the unit.
Only Indoor Fan Works when Cooling or Heating is Desired. NOTE: Indoor fan runs continuously in cooling mode.	The selected mode is Fan Only, or Cool when heating is desired.	Check if the remote control is in the desired mode. If not, select the correct mode (refer to User manual). Also note that every 15 minutes (maximum) the compressor will be switched minimally on for 3 minutes.
	Temperature is set to a value which is too high (in Cool mode).	Observe the temperature setting on the remote control. Also note that each 15 minutes (maximum), the compressor will be switched on minimally for 3 minutes.
Only Indoor Fan Motor and Outdoor Fan Motor are Working. No Cooling and/or Heating Takes Place.	Overload safety device on compressor is cut out due to high temperature.	Switch off power and try again after one hour.
	Compressor run capacitor is burnt.	Replace compressor run capacitor.
	Compressor winding shorted.	Replace compressor.
No Air Supply at Indoor Unit (Compressor Operates).	Indoor fan motor is blocked or turns slowly.	1. Check voltage. Repair wiring if necessary. 2. Check indoor fan wheel if tight on motor shaft. Tighten if necessary.
	Indoor fan motor capacitor is burnt.	Replace indoor fan motor capacitor.
	Indoor fan motor winding is burnt.	Replace indoor fan motor.
	In Heat mode: Delayed start for indoor fan motor.	Normal software delay (maximum of 20 sec).
	Clogged air filters.	Clean filters.
Low Capacity.	Lack of refrigerant. Ice formation on the evaporator coil.	Unit must be charged (according to the nameplate) after localizing the gas leak.
	Clogged air filters.	Clean filters.
In Heat Mode, Only Compressor Runs. Outdoor and Indoor Fan Motors are Stopped.	A/C operating in defrost cycle.	Wait 10 minutes (maximum) until the unit resumes normal operation.
Water Accumulates and Overflows from Evaporator Drain Pan.	Drain pan pipe or hose is clogged or the spout of drain pan is clogged.	Disassemble plastic drain pipe from spout of evaporator drain pan. Flush with clean water.
Unit Does Not Operate in Desired Mode.	The unit is in the Auto, (emergency) mode.	Push button once to cancel Auto, (emergency) mode.
	Faulty remote control settings.	1. If remote control symbols respond to the commands correctly, check the unit ID Code (Standard or Alternative). Refer to “Changing Unit ID Code” in the Owner’s Manual. 2. If Cool commands are OK, but Heat symbol is skipped on LCD, refer to setting the remote to cooling or heat pump on the Owner’s Manual. 3. Replace remote control.
	Remote control low battery.	Replace remote control batteries.
The Unit Receives Interference from Other Remote Control or the Remote Control Interferes with Other Instruments.	Common Infrared Code.	Modify the Remote Control IR transmission code. Refer to “Changing Unit ID Code” in the Owner’s Manual.

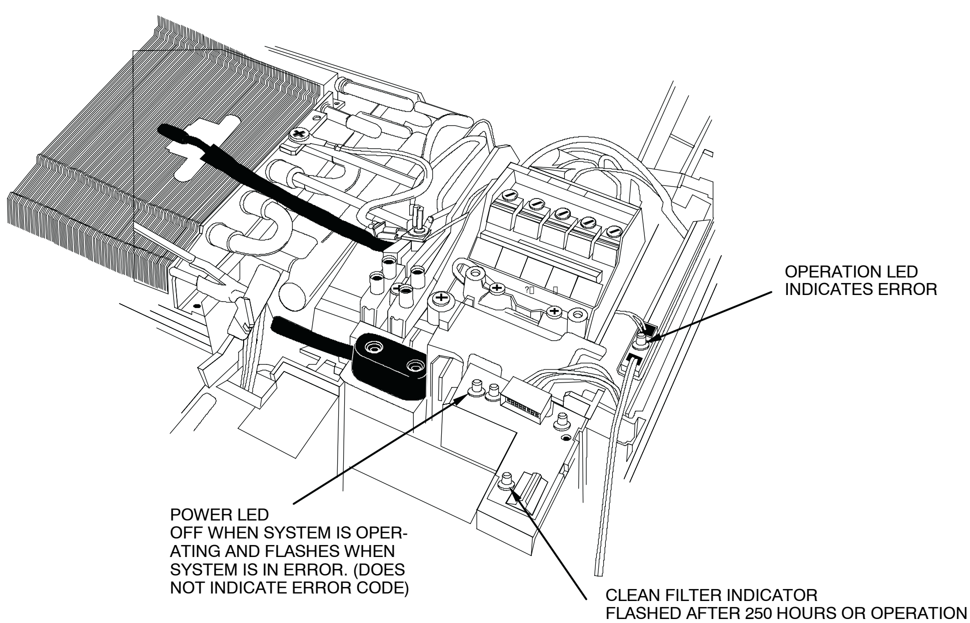
IMPORTANT:

The units are designed to work in heat mode only down to –10°C (14°F) outdoor ambient temperature.

If at starting time outdoor temperature is equal or lower than –10°C (14°F) the unit will not start and the filter led will flash five (5) times to indicate that low temperature protection is activated.

TROUBLESHOOTING

LAMP STATUS	INDICATION	CORRECTION ACTION
1 Flash	Faulty TH1 Sensor	Check the TH1 thermistor for correct resistance. Check for proper connection. Replace thermistor if necessary.
2 Flashes	Faulty TH2 Sensor	Check the TH2 thermistor for correct resistance. check for proper connection. Replace thermistor if necessary.
3 Flashes	Low Pressure	Check system pressures. Check refrigerant charge. Check thermistors (TH1 and TH2) for correct re-sistance.
4 Flashes	High Pressure	Check system pressures. Check refrigerant charge. Check thermistors (TH1 and TH2) for correct re-sistance.
5 Flashes	Low voltage	Check operating voltage. Check electrical connections.
6 Flashes	High Voltage	Check operating voltage. Check electrical connections
INFORMATIONAL		
7 Flashes	Operating at Low Capacity	Bristol – Twin compressors (24 & 36) Does not lock unit out.



Specifications subject to change without notice.

DIP SWITCH SETTINGS (9K TO 36K)

Remove Electronic Control Box Assembly from the unit. Rotate assembly until the description label and dip switches are visible.

DS #1 and #2, Model definition

DS #3, Heat Pump or CLG

DS #4, Display type (local or wired)

DS #5, Not applicable

DS #6, TS or fixed speed compressor

DIP SWITCH SETTINGS (9k to 18k)			
DS	FUNCTION	ON	OFF
1	Model	TGL1209 / TGL 2018	TGL 1212
2		Always ON	
3		Heat Pump	Cool Only
4	Display	Local Display	Wired Display
5	N/A	Always OFF	
6	Two Step Compressor	Always OFF	

DIP SWITCH SETTINGS (24k)			
DS	FUNCTION	ON	OFF
1	Model	Always ON	
2		Always OFF	
3		Heat Pump	Cool Only
4	Display	Local Display	Wired Display
5	N/A	Always OFF	
6	Two Step Compressor	Always ON	

DIP SWITCH SETTINGS (30k to 36k)			
DS	FUNCTION	ON	OFF
1	Model	2030	2036
2			
3		Heat Pump	Cool Only
4	Display	Local Display	Wired Display
5	N/A	Always OFF	
6	Two Step Compressor	Always ON	

OPERATING RANGE

Suitable operating temperature ranges

When outdoor temperature is below 14° F in heating mode the FILTER LED will flash five (5) times and the system will not run.

OPERATING MODE	INDOOR UNIT AMBIENT TEMP	OUTDOOR UNIT AMBIENT TEMP
COOL & DRY	64° F (17° C) to 90° F (32° C)	60° F (15° C) to 115° F (46° C) – rotary 60° F (15° C) to 125° F (52° C) – TS
HEAT	Below 81° F (27° C)	Below 14° F (–10° C) to 75° F (24° C)

DUCT FREE SPLIT SYSTEM MODEL NUMBER IDENTIFICATION GUIDE – OUTDOOR

DFC	2	A	3	09	J	1	A	1

DFC = Duct Free Condenser

2 = R–22
4 = Environmentally Sound R–410A **REFRIGERANT**

A = Air Conditioner
H = Heat Pump **TYPE**

3 = 13
4 = 14 **NAMEPLATE SEER**

09 = 9,000 BTUH = ¾ ton
12 = 12,000 BTUH = 1 ton
18 = 18,000 BTUH = 1½ tons
24 = 24,000 BTUH = 2 tons
30 = 30,000 BTUH = 2½ tons
36 = 36,000 BTUH = 3 tons **NOMINAL CAPACITY**

J = 115–1–60
K = 208/230–1–60 **SUPPLY VOLTAGE**

1 = Single Zone
2 = Dual Zone
3 = Tri Zone **SALES CODE / FEATURES**

Sales Code

Engineering Revision

DUCT FREE SPLIT SYSTEM MODEL NUMBER IDENTIFICATION GUIDE – INDOOR

DFF	2	A	H	09	J	1	A	1

DFC = Duct Free Fan Coil

2 = R–22
4 = Environmentally Sound R–410A **REFRIGERANT**

A = Air Conditioner
H = Heat Pump **TYPE**

H = High Wall
U= Under Ceiling
C = Cassette **APPLICATION**

09 = 9,000 BTUH = ¾ ton
12 = 12,000 BTUH = 1 ton
18 = 18,000 BTUH = 1½ tons
24 = 24,000 BTUH = 2 tons
30 = 30,000 BTUH = 2½ tons
36 = 36,000 BTUH = 3 tons **NOMINAL CAPACITY**

J = 115–1–60
K = 208/230–1–60 **SUPPLY VOLTAGE**

1 = Single Zone
2 = Dual Zone
3 = Tri Zone **SALES CODE / FEATURES**

Sales Code

Engineering Revision

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